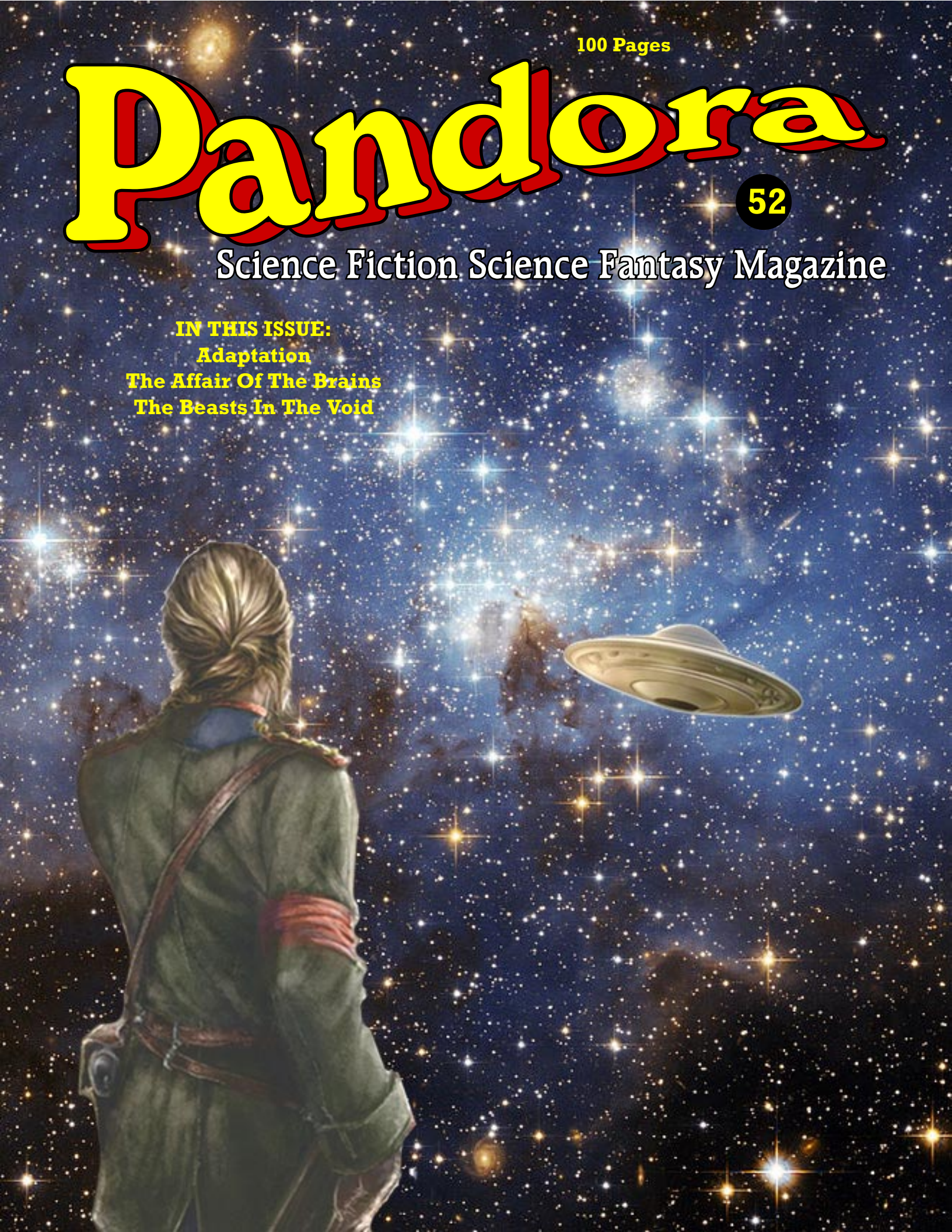
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Science Fiction Science Fantasy Magazine
IN THIS ISSUE:
Adaptation
The Affair Of The Brains
The Beasts In The Void

Pandora

Science Fiction Science Fantasy Magazine

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ADAPTATION

When a man has a great deal of knowledge, it becomes extremely easy for him to confuse "knowledge" with "wisdom" ... and forget that the antonym of "wisdom" is not "ignorance" but "folly."

FORWARD

Hardly had man solved his basic problems on the planet of his origin than he began to fumble into space. Barely a century had elapsed in the exploration of the Solar System than he began to grope for the stars.

And suddenly, with an all but religious zeal, mankind conceived its fantasy dream of populating the galaxy. Never in the history of the race had fervor reached such a peak and held so long. The question of why was seemingly ignored. Millions of Earth-type planets beckoned and with a lemming-like desperation humanity erupted into them.

But the obstacles were frightening in their magnitude. The planets and satellites of Sol had proven comparatively tractable and those that were suited to man-life were quickly brought under his dominion. But there, of course, he had the advantage of proximity. The time involved in running back and forth to the home planet was meaningless and all Earth's resources could be thrown into each problem's solving.

But a planet a year removed in transportation or even communication? Ay! this was another thing and more than once a million colonists were lost before the Earthlings could adapt to new climates, new flora and fauna, new bacteria—or to factors which the most far out visionary had never fancied, perhaps the lack of something never before missed.

So, mad with the lust to seed the universe with his kind, men sought new methods. To a hundred thousand worlds they sent smaller colonies, as few as a hundred pioneers apiece, and there marooned them, to adapt, if adapt they could.

For a millennium each colony was left to its own resources, to conquer the environment or to perish in the effort.

A thousand years was sufficient. Invariably it was found, on those planets where human life survived at all, man slipped back during his first two or three centuries into a state of barbarism. Then slowly began to inch forward again. There were exceptions and the progress on one planet never exactly duplicated that on another, however the average was surprisingly close to both nadir and zenith, in terms of evolution of society.

In a thousand years it was deemed by the Office of Galactic Colonization such pioneers had largely adjusted to the new environment and were ready for civilization, industrialization and eventual assimilation into the rapidly evolving Galactic Commonwealth.

Of course, even from the beginning, new and unforeseen problems manifested themselves ...

from "Man In Antiquity"
published in Terra City, Sol Galactic Year 3,502.

I.

The Co-ordinator said, "I suppose I'm an incurable romantic. You see, I hate to see you go." Academician Amschel Mayer was a man in early middle years; Dr. Leonid Plekhanov, his contemporary. They offset one another; Mayer thin and high-pitched, his colleague heavy, slow and dour. Now they both showed their puzzlement.

The Co-ordinator added, "Without me."

Plekhanov kept his massive face blank. It wasn't for him to be impatient with his superior. Nevertheless, the ship was waiting, stocked and crewed.

Amschel Mayer said, "Certainly a last minute chat can't harm." Inwardly he realized the other man's position. Here was a dream coming true, and Mayer and his fellows were the last thread that held the Co-ordinator's control over the dream. When they left, half a century would pass before he could again check developments.

The Co-ordinator became more businesslike. "Yes," he said, "but I have more in mind than a chat. Very briefly, I wish to go over your assignment. Undoubtedly redundant, but if there are questions, no matter how seemingly trivial, this is the last opportunity to air them."

What possible questions could there be at this late date? Plekhanov thought.

The department head swiveled slowly in his chair and then back again as he talked. "You are the first—the first of many, many such teams. The manner in which you handle your task will effect man's eternity. Obviously, since upon your experience we will base our future policies on interstellar colonization." His voice lost volume. "The position in which you find yourselves should be humbling."

"It is," Amschel Mayer agreed. Plekhanov nodded his head.

The Co-ordinator nodded, too. "However, the situation is as near ideal as we could hope. Rigel's planets are all but unbelievably Earthlike. Almost all our flora and fauna have been adaptable. Certainly our race has been.

"These two are the first of the seeded planets. Almost a thousand years ago we deposited small bodies of colonists upon each of them. Since then we have periodically checked, from a distance, but never intruded." His eyes went from one of his listeners to the other. "No comments or questions, thus far?"

Mayer said, "This is one thing that surprises me. The colonies are so small to begin with. How could they possibly populate a whole world in one millennium?"

The Co-ordinator said, "Man adapts, Amschel. Have you studied the development of the United States? During her first century and a half the need was for population to fill the vast lands wrested from the Amer-Inds. Families of eight, ten, and twelve children were the common thing, much larger ones were not unknown. And the generations crowded one against another; a girl worried about spinsterhood if she reached seventeen unwed. But in the next century? The frontier vanished, the driving need for population was gone. Not only were drastic immigration laws passed, but the family shrunk rapidly until by mid-Twentieth Century the usual consisted of two or three children, and even the child-

less family became increasingly common."

Mayer frowned impatiently, "But still, a thousand years. There is always famine, war, disease ..."

Plekhanov snorted patronizingly. "Forty to fifty generations, Amschel? Starting with a hundred colonists? Where are your mathematics?"

The Co-ordinator said, "The proof is there. We estimate that each of Rigel's planets now supports a population of nearly one billion."

"To be more exact," Plekhanov rumbled, "some nine hundred million on Genoa, seven and a half on Texcoco."

Mayer smiled wryly. "I wonder what the residents of each of these planets call their worlds. Hardly the same names we have arbitrarily bestowed."

"Probably each call theirs *The World*," the Co-ordinator smiled. "After all, the basic language, in spite of a thousand years, is still Amer-English. However, I assume you are familiar with our method of naming. The most advanced culture on Rigel's first planet is to be compared to the Italian cities during Europe's feudalistic era. We have named that planet Genoa. The most advanced nation of the second planet is comparable to the Aztecs at the time of the conquest. We considered Tenochtitlán but it seemed a tongue twister, so Texcoco is the alternative."

"Modernizing Genoa," Mayer mused, "should be considerably easier than the task on semiprimitive Texcoco."

Plekhanov shrugged, "Not necessarily."

The Co-ordinator held up a hand and smiled at them. "Please, no debates on methods at present. An hour from now you will be in space with a year of travel before you. During that time you'll have opportunity for discussion, debate and hair pulling on every phase of your problem."

His expression became more serious. "You are acquainted with the unique position you assume. These colonists are in your control to an extent no small group has ever dominated millions of others before. No Caesar ever exerted the power that will be in your educated hands. For a half century you will be as gods. Your science, your productive know-how, your medicine—if it comes to that, your weapons—are many centuries in advance of theirs. As I said before, your position should be humbling."

Mayer squirmed in his chair. "Why not check upon us, say, once every decade? In all, our ship's company numbers but sixteen persons. Almost anything could happen. If you were to send a department craft each ten years ..."

The Co-ordinator was shaking his head. "Your qualifications are as high as anyone available. Once on the scene you will begin accumulating information which we, here in Terra City, do not have. Were we to send another group in ten years to check upon you, all they could do would be interfere in a situation all the factors with which they would not be cognizant."

Amschel Mayer shifted nervously. "But no matter how highly trained, nor how earnest our efforts, we still may fail." His voice worried. "The department cannot expect guaranteed success. After all, we are the first."

"Admittedly. Your group is first to approach the hundreds of thousands of planets we have seeded. If you fail, we will use your failure to perfect the eventual system we must devise for future teams. Even your failure would be of infinite use to us." He lifted and dropped a shoulder. "I have no desire to undermine your belief in yourselves but—how are we to know?—per-

haps there will be a score of failures before we find the ideal method of quickly bringing these primitive colonies into our Galactic Commonwealth."

The Co-ordinator came to his feet and sighed. He still hated to see them go. "If there is no other discussion ..."

II.

Specialist Joseph Chessman stood stolidly before a viewing screen. Theoretically he was on watch. Actually his eyes were unseeing, there was nothing to see. The star pattern changed so slowly as to be all but permanent.

Not that every other task on board was not similar. One man could have taken the *Pedagogue* from the Solar System to Rigel, just as easily as its sixteen-hand crew was doing. Automation at its ultimate, not even the steward department had tasks adequately to fill the hours.

He had got beyond the point of yawning, his mind was a blank during these hours of duty. He was a stolid, bear of a man, short and massive of build.

A voice behind him said, "Second watch reporting. Request permission to take over the bridge."

Chessman turned and it took a brief moment for the blankness in his eyes to fade into life. "Hello Kennedy, you on already? Seems like I just got here." He muttered in self-contradiction, "Or that I've been here a month."

Technician Jerome Kennedy grinned. "Of course, if you want to stay ..."

Chessman said glumly, "What difference does it make where you are? What are they doing in the lounge?"

Kennedy looked at the screen, not expecting to see anything and accomplishing just that. "Still on their marathon argument."

Joe Chessman grunted.

Just to be saying something, Kennedy said, "How do you stand in the big debate?"

"I don't know. I suppose I favor Plekhanov. How we're going to take a bunch of savages and teach them modern agriculture and industrial methods in fifty years under democratic institutions, I don't know. I can see them putting it to a vote when we suggest fertilizer might be a good idea." He didn't feel like continuing the conversation. "See you later, Kennedy," and then, as an afterthought, formally, "Relinquishing the watch to Third Officer."

As he left the compartment, Jerry Kennedy called after him, "Hey, what's the course!"

Chessman growled over his shoulder, "The same it was last month, and the same it'll be next month." It wasn't much of a joke but it was the only one they had between themselves.

In the ship's combination lounge and mess he drew a cup of coffee. Joe Chessman, among whose specialties were propaganda and primitive politics, was third in line in the expedition's hierarchy. As such he participated in the endless controversy dealing with overall strategy but only as a junior member of the firm. Amschel Mayer and Leonid Plekhanov were the center of the fracas and right now were at it hot and heavy.

Joe Chessman listened with only half interest. He settled into a chair on the opposite side of the lounge and sipped at his coffee. They were going over their old battlefields, assaulting ramparts they'd stormed a thousand times over.

Plekhanov was saying doggedly, "Any planned economy is more efficient than any unplanned one. What could be more elementary than that? How could anyone in

his right mind deny that?"

And Mayer snapped, "*I* deny it. That term *planned economy* covers a multitude of sins. My dear Leonid, don't be an idiot ..."

"I beg your pardon, sir!"

"Oh, don't get into one of your huffs, Plekhanov."

They were at that stage again.

* * * * *

Technician Natt Roberts entered, a book in hand, and sent the trend of conversation in a new direction. He said, worriedly, "I've been studying up on this and what we're confronted with is two different ethnic periods, barbarism and feudalism. Handling them both at once doubles our problems."

One of the junior specialists who'd been sitting to one side said, "I've been thinking about that and I believe I've got an answer. Why not all of us concentrate on Texcoco? When we've brought them to the Genoa level, which shouldn't take more than a decade or two, then we can start working on the Genoese, too."

Mayer snapped, "And by that time we'll have hardly more than half our fifty years left to raise the two of them to an industrial technology. Don't be an idiot, Stevens."

Stevens flushed his resentment.

Plekhanov said slowly, "Besides, I'm not sure that, given the correct method, we cannot raise Texcoco to an industrialized society in approximately the same time it will take to bring Genoa there."

Mayer bleated a sarcastic laugh at that opinion.

Natt Roberts tossed his book to the table and sank into a chair. "If only one of them had maintained itself at a reasonable level of development, we'd have had help in working with the other. As it is, there are only sixteen of us." He shook his head. "Why did the knowledge held by the original colonists melt away? How can an intelligent people lose such basics as the smelting of iron, gunpowder, the use of coal as a fuel?"

Plekhanov was heavy with condescension. "Roberts, you seem to have entered upon this expedition with a lack of background. Consider. You put down a hundred colonists, products of the most advanced culture. Among these you have one or two who can possibly repair an I.B.M. machine, but is there one who can smelt iron, or even locate the ore? We have others who could design an automated textile factory, but do any know how to weave a blanket on a hand loom?

"The first generation gets along well with the weapons and equipment brought with them from Earth. They maintain the old ways. The second generation follows along but already ammunition for the weapons runs short, the machinery imported from Earth needs parts. There is no local economy that can provide such things. The third generation begins to think of Earth as a legend and the methods necessary to survive on the new planet conflict with those the first settlers imported. By the fourth generation, Earth is no longer a legend but a fable ..."

"But the books, the tapes, the films ..." Roberts injected.

"Go with the guns, the vehicles and the other things brought from Earth. On a new planet there is no leisure class among the colonists. Each works hard if the group is to survive. There is no time to write new books, nor to copy the old, and the second and especially the third generation are impatient of the time needed to learn to read, time that should be spent in the fields or at the chase. The youth of an industrial culture

can spend twenty years and more achieving a basic education before assuming adult responsibilities but no pioneer society can afford to allow its offspring to so waste its time."

Natt Roberts was being stubborn. "But still, a few would carry the torch of knowledge."

Plekhanov nodded ponderously. "For a while. But then comes the reaction against these nonconformists, these crackpots who, by spending time at books, fail to carry their share of the load. One day they wake up to find themselves expelled from the group—if not knocked over the head."

* * * * *

Joe Chessman had been following Plekhanov's argument. He said dourly, "But finally the group conquers its environment to the point where a minimum of leisure is available again. Not for everybody, of course."

Amschel Mayer bounced back into the discussion. "Enter the priest, enter the war lord. Enter the smart operator who talks or fights himself into a position where he's free from drudgery."

Joe Chessman said reasonably, "If you don't have the man with leisure, society stagnates. Somebody has to have time off for thinking, if the whole group is to advance."

"Admittedly!" Mayer agreed. "I'd be the last to contend that an upper class is necessarily parasitic."

Plekhanov grumbled, "We're getting away from the subject. In spite of Mayer's poorly founded opinions, it is quite obvious that only a collectivized economy is going to enable these Rigel planets to achieve an industrial culture in as short a period as half a century."

Amschel Mayer reacted as might have been predicted. "Look here, Plekhanov, we have our own history to go by. Man made his greatest strides under a freely competitive system."

"Well now ..." Chessman began.

"Prove that!" Plekhanov insisted loudly. "Your so-called free economy countries such as England, France and the United States began their industrial revolution in the early part of the nineteenth century. It took them a hundred years to accomplish what the Soviets did in fifty, in the next century."

"Just a *moment*, now," Mayer simmered. "That's fine, but the Soviets were able to profit by the pioneering the free countries did. The scientific developments, the industrial techniques, were handed to her on a platter."

Specialist Martin Gunther, thus far silent, put in his calm opinion. "Actually, it seems to me the fastest industrialization comes under a paternal guidance from a more advanced culture. Take Japan. In 1854 she was opened to trade by Commodore Perry. In 1871 she abolished feudalism and encouraged by her own government and utilizing the most advanced techniques of a sympathetic West, she began to industrialize." Gunther smiled wryly, "Soon to the dismay of the very countries that originally sponsored bringing her into the modern world. By 1894 she was able to wage a successful war against China and by 1904 she took on and trounced Czarist Russia. In a period of thirty-five years she had advanced from feudalism to a world power."

Joe Chessman took his turn. He said obdurately, "Your paternalistic guidance, given an uncontrolled competitive system, doesn't always work out. Take India after she gained independence from England. She tried to industrialize and had the support of the free nations. But what hap-

pened?"

Plekhanov leaned forward to take the ball. "Yes! There's your classic example. Compare India and China. China had a planned industrial development. None of this free competition nonsense. In ten years time they had startled the world with their advances. In twenty years—"

"Yes," Stevens said softly, "but at what price?"

Plekhanov turned on him. "At any price!" he roared. "In one generation they left behind the China of famine, flood, illiteracy, war lords and all the misery that had been China's throughout history."

Stevens said mildly, "Whether in their admitted advances they left behind all the misery that had been China's is debatable, sir."

Plekhanov began to bellow an angry retort but Amschel Mayer popped suddenly to his feet and lifted a hand to quiet the others. "Our solution has just come to me!"

Plekhanov glowered at him.

Mayer said excitedly, "Remember what the Co-ordinator told us? This expedition of ours is the first of its type. Even though we fail, the very mistakes we make will be invaluable. Our task is to learn how to bring backward peoples into an industrialized culture in roughly half a century."

The messroom's occupants scowled at him. Thus far he'd said nothing new.

Mayer went on enthusiastically. "Thus far in our debates we've had two basic suggestions on procedure. I have advocated a system of free competition; my learned colleague has been of the opinion that a strong state and a planned, not to say totalitarian, economy would be the quicker." He paused dramatically. "Very well, I am in favor of trying them both."

They regarded him blankly.

He said with impatience, "There are two planets, at different ethnic periods it is true, but not so far apart as all that. Fine, eight of us will take Genoa and eight Texcoco."

Plekhanov rumbled, "Fine, indeed. But which group will have the use of the *Pedagogue* with its library, its laboratories, its shops, its weapons?"

For a moment, Mayer was stopped but Joe Chessman growled, "That's no problem. Leave her in orbit around Rigel. We've got two small boats with which to ferry back and forth. Each group could have the use of her facilities any time they wished."

"I suppose we could have periodic conferences," Plekhanov said. "Say once every decade to compare notes and make further plans, if necessary."

Natt Roberts was worried. "We had no such instructions from the Co-ordinator. Dividing our forces like that."

Mayer cut him short. "My dear Roberts, we were given *carte blanche*. It is up to us to decide procedure. Actually, this system realizes twice the information such expeditions as ours might ordinarily offer."

"Texcoco for me," Plekhanov grumbled, accepting the plan in its whole. "The more backward of the two, but under my guidance in half a century it will be the more advanced, mark me."

"Look here," Martin Gunther said. "Do we have two of each of the basic specialists, so that we can divide the party in such a way that neither planet will miss out in any one field?"

Amschel Mayer was beaming at the reception of his scheme. "The point is well taken, my dear Martin, however you'll recall that our training was deliberately made such that each man spreads over several

fields. This in case, during our half century without contact, one or more of us meets with accident. Besides, the *Pedagogue's* library is such that any literate can soon become effective in any field to the extent needed on the Rigel planets."

III.

Joe Chessman was at the controls of the space lighter. At his side sat Leonid Plekhanov and behind them the other six members of their team. They had circled Texcoco twice at great altitude, four times at a lesser one. Now they were low enough to spot man-made works.

"Nomadic," Plekhanov muttered. "Nomadic and village cultures."

"A few dozen urbanized cultures," Chessman said. "Whoever compared the most advanced nation to the Aztecs was accurate, except for the fact that they base themselves along a river rather than on a mountain plateau."

Plekhanov said, "Similarities to the Egyptians and Sumerians." He looked over his beefy shoulder at the technician who was photographing the areas over which they passed. "How does our geographer progress, Roberts?"

Natt Roberts brought his eyes up from his camera viewer. "I've got most of what we'll need for a while, sir."

Plekhanov turned back to Chessman. "We might as well head for their principal city, the one with the pyramids. We'll make initial contact there. I like the suggestion of surplus labor available."

"Surplus labor?" Chessman said, setting the controls. "How do you know?"

"Pyramids," Plekhanov rumbled. "I've always been of the opinion that such projects as pyramids, whether they be in Yucatan or Egypt, are make-work affairs. A priesthood, or other ruling clique, keeping its people busy and hence out of mischief."

Chessman adjusted a speed lever and settled back. "I can see their point."

"But I don't agree with it," Plekhanov said ponderously. "A society that builds pyramids is a static one. For that matter any society that resorts to make-work projects to busy its citizenry has something basically wrong."

Joe Chessman said sourly, "I wasn't supporting the idea, just understanding the view of the priesthoods. They'd made a nice thing for themselves and didn't want to see anything happen to it. It's not the only time a group in the saddle has held up progress for the sake of remaining there. Priests, slave-owners, feudalistic barons, or bureaucrats of a twentieth-century police state, a ruling clique will never give up power without pressure."

Barry Watson leaned forward and pointed down and to the right. "There's the river," he said. "And there's their capital city."

The small spacecraft settled at decreasing speed.

Chessman said, "The central square? It seems to be their market, by the number of people."

"I suppose so," Plekhanov grunted. "Right there before the largest pyramid. We'll remain inside the craft for the rest of today and tonight."

Natt Roberts, who had put away his camera, said, "But why? It's crowded in here."

"Because I said so," Plekhanov rumbled. "This first impression is important. Our flying machine is undoubtedly the first they've seen. We've got to give them time to assimilate the idea and then get together a welcoming committee. We'll want the top men, right from the beginning."

"The equivalent of the Emperor Montezuma meeting Cortez, eh?" Barry Watson said. "A real red carpet welcome."

The *Pedagogue's* space lighter settled to the plaza gently, some fifty yards from the ornately decorated pyramid which stretched up several hundred feet and was topped by a small templelike building.

Chessman stretched and stood up from the controls. "Your anthropology ought to be better than that, Barry," he said. "There was no Emperor Montezuma and no Aztec Empire, except in the minds of the Spanish." He peered out one of the heavy ports. "And by the looks of this town we'll find an almost duplicate of Aztec society. I don't believe they've even got the wheel."

The eight of them clustered about the craft's portholes, taking in the primitive city that surrounded them. The square had emptied at their approach, and now the several thousand citizens that had filled it were peering fearfully from street entrances and alleyways.

Cogswell, a fiery little technician, said, "Look at them! It'll take hours before they drum up enough courage to come any closer. You were right, doctor. If we left the boat now, we'd make fools of ourselves trying to coax them near enough to talk."

Watson said to Joe Chessman "What do you mean, no Emperor Montezuma?"

Chessman said absently, as he watched, "When the Spanish got to Mexico they didn't understand what they saw, being musclemen rather than scholars. And before competent witnesses came on the scene, Aztec society was destroyed. The conquistadors, who did attempt to describe Tenochtitlán, misinterpreted it. They were from a feudalistic world and tried to portray the Aztecs in such terms. For instance, the large Indian community houses they thought were palaces. Actually, Montezuma was a democratically elected war chief of a confederation of three tribes which militarily dominated most of the Mexican valley. There was no empire because Indian society, being based on the clan, had no method of assimilating newcomers. The Aztec armies could loot and they could capture prisoners for their sacrifices, but they had no system of bringing their conquered enemies into the nation. They hadn't reached that far in the evolution of society. The Incas could have taught them a few lessons."

Plekhanov nodded. "Besides, the Spanish were fabulous liars. In Cortez's attempt to impress Spain's king, he built himself up far beyond reality. To read his reports you'd think the pueblo of Mexico had a population pushing a million. Actually, if it had thirty thousand it was doing well. Without a field agriculture and with their primitive transport, they must have been hard put to feed even that large a town."

A tall, militarily erect native strode from one of the streets that debouched into the plaza and approached to within twenty feet of the space boat. He stared at it for at least ten full minutes then spun on his heel and strode off again in the direction of one of the stolidly built stone buildings that lined the square on each side except that which the pyramid dominated.

Cogswell chirped, "Now that he's broken the ice, in a couple of hours kids will be scratching their names on our hull."

* * * * *

In the morning, two or three hours after dawn, they made their preparations to disembark. Of them all, only Leonid Plekhanov was unarmed. Joe Chessman had a heavy handgun holstered at his waist. The rest of the men carried submachine guns. More destructive weapons were hardly called for, nor available for that mat-

ter; once world government had been established on Earth the age-old race for improved arms had fallen away.

Chessman assumed command of the men, growled brief instructions. "If there's any difficulty, remember we're civilizing a planet of nearly a billion population. The life or death of a few individuals is meaningless. Look at our position scientifically, dispassionately. If it becomes necessary to use force—we have the right and the might to back it up. MacBride, you stay with the ship. Keep the hatch closed and station yourself at the fifty-caliber gun."

The natives seemed to know intuitively that the occupants of the craft from the sky would present themselves at this time. Several thousands of them crowded the plaza. Warriors, armed with spears and bronze headed war clubs, kept the more adventurous from crowding too near.

The hatch opened, the steel landing stair snaked out, and the hefty Plekhanov stepped down, closely followed by Chessman. The others brought up the rear, Watson, Roberts, Stevens, Hawkins and Cogswell. They had hardly formed a compact group at the foot of the spacecraft than the ranks of the natives parted and what was obviously a delegation of officials approached them. In the fore was a giant of a man in his late middle years, and at his side a cold-visaged duplicate of him, obviously a son.

Behind these were variously dressed others, military, priesthood, local officials, by their appearance.

Ten feet from the newcomers they stopped. The leader said in quite understandable Amer-English, "I am Taller, Khan of all the People. Our legends tell of you. You must be from First Earth." He added with a simple dignity, a quiet gesture, "Welcome to the World. How may we serve you?"

Plekhanov said flatly, "The name of this planet is Texcoco and the inhabitants shall henceforth be called Texcocans. You are correct, we have come from Earth. Our instructions are to civilize you, to bring you the benefits of the latest technology, to prepare you to enter the community of planets." Phlegmatically he let his eyes go to the pyramids, to the temples, the large community dwelling quarters. "We'll call this city Tula and its citizens Tulans."

Taller looked thoughtfully at him, not having missed the tone of arrogant command. One of the group behind the Khan, clad in gray flowing robes, said to Plekhanov, mild reproof in his voice, "My son, we are the most advanced people on ... Texcoco. We have thought of ourselves as civilized. However, we—"

Plekhanov rumbled, "I am not your son, old man, and you are far short of civilization. We can't stand here forever. Take us to a building where we can talk without these crowds staring at us. There is much to be done."

Taller said, "This is Mynor, Chief Priest of the People."

The priest bowed his head, then said, "The People are used to ceremony on outstanding occasions. We have arranged for suitable sacrifices to the gods. At their completion, we will proclaim a festival. And then—"

The warriors had cleared a way through the multitude to the pyramid and now the Earthlings could see a score of chained men and women, nude save for loin cloths and obviously captives.

Plekhanov made his way toward them, Joe Chessman at his right and a pace to the rear. The prisoners stood straight and, considering their position, with calm.

Plekhanov glared at Taller. "You were going to kill these?"

The Khan said reasonably, "They are not of the People. They are prisoners taken in battle."

Mynor said, "Their lives please the gods."

"There are no gods, as you probably know," Plekhanov said flatly. "You will no longer sacrifice prisoners."

A hush fell on the Texcocans. Joe Chessman let his hand drop to his weapon. The movement was not lost on Taller's son, whose eyes narrowed.

The Khan looked at the burly Plekhanov for a long moment. He said slowly, "Our institutions fit our needs. What would you have us do with these people? They are our enemies. If we turn them loose, they will fight us again. If we keep them imprisoned, they will eat our food. We ... Tulans are not poor, we have food aplenty, for we Tulans, but we cannot feed all the thousands of prisoners we take in our wars."

Joe Chessman said dryly, "As of today there is a new policy. We put them to work."

Plekhanov rumbled at him, "I'll explain our position, Chessman, if you please." Then to the Tulans. "To develop this planet we're going to need the labor of every man, woman and child capable of work."

Taller said, "Perhaps your suggestion that we retire to a less public place is desirable. Will you follow?" He spoke a few words to an officer of the warriors, who shouted orders.

* * * * *

The Khan led the way, Plekhanov and Chessman followed side by side and the other Earthlings, their weapons unostentatiously ready, were immediately behind. Mynor the priest, Taller's son and the other Tulan officials brought up the rear.

In what was evidently the reception hall of Taller's official residence, the newcomers were made as comfortable as fur padded low stools provided. Half a dozen teenaged Tulans brought a cool drink similar to cocoa; it seemed to give a slight lift.

Taller had not become Khan of the most progressive nation on Texcoco by other than his own abilities. He felt his way carefully now. He had no manner of assessing the powers wielded by these strangers from space. He had no intention of precipitating a situation in which he would discover such powers to his sorrow.

He said carefully, "You have indicated that you intend major changes in the lives of the People."

"Of all Texcocans," Plekhanov said, "you Tulans are merely the beginning."

Mynor, the aged priest, leaned forward. "But why? We do not want these changes—whatever they may be. Already the Khan has allowed you to interfere with our worship of our gods. This will mean—"

Plekhanov growled, "Be silent, old man, and don't bother to mention, ever again, your so-called gods. And now, all of you listen. Perhaps some of this will not be new, how much history has come down to you I don't know.

"A thousand years ago a colony of one hundred persons was left here on Texcoco. It will one day be of scholarly interest to trace them down through the centuries but at present the task does not interest us. This expedition has been sent to recontact you, now that you have populated Texcoco and made such adaptations as were necessary to survive here. Our basic task is to modernize your society, to bring it to an industrialized culture."

Plekhanov's eyes went to Taller's son. "I assume you are a soldier?"

Taller said, "This is Reif, my eldest, and by our custom, second in command of the People's armies. As Khan, I am first."

Reif nodded coldly to Plekhanov. "I am a soldier." He hesitated for a moment, then added, "And willing to die to protect the People."

"Indeed," Plekhanov rumbled, "as a soldier you will be interested to know that our first step will involve the amalgamation of all the nations and tribes of this planet. Not a small task. There should be opportunity for you."

Taller said, "Surely you speak in jest. The People have been at war for as long as scribes have records and never have we been stronger than today, never larger. To conquer the world! Surely you jest."

Plekhanov grunted ungraciously. He looked to Barry Watson, a lanky youth, now leaning negligently against the wall, his submachine gun, however, at the easy ready. "Watson, you're our military expert. Have you any opinions as yet?"

"Yes, sir," Watson said easily. "Until we can get iron weapons and firearms into full production, I suggest the Macedonian phalanx for their infantry. They have the horse, but evidently the wheel has gone out of use. We'll introduce the chariot and also heavy carts to speed up logistics. We'll bring in the stirruped saddle, too. I have available for study, works on every cavalry leader from Tamerlane to Jeb Stuart. Yes, sir, I have some ideas."

Plekhanov pursed his heavy lips. "From the beginning we're going to need manpower on a scale never dreamed of locally. We'll adopt a policy of expansion. Those who join us freely will become members of the State with full privileges. Those who resist will be made prisoners of war and used for shock labor on the roads and in the mines. However, a man works better if he has a goal, a dream. Each prisoner will be freed and become a member of the State after ten years of such work."

He turned to his subordinates. "Roberts and Hawkins, you will begin tomorrow to seek the nearest practical sources of iron ore and coal. Wherever you discover them we'll direct our first military expeditions. Chessman and Cogswell, you'll assemble their best artisans and begin their training in such basic advancements as the wheel."

Taller said softly, "You speak of advancement but thus far you have mentioned largely war and on such a scale that I wonder how many of the People will survive. What advancement? We have all we wish."

Plekhanov cut him off with a curt motion of his hand. He indicated the hieroglyphics on the chamber's walls. "How long does it take to learn such writing?"

Mynor, the priest, said, "This is a mystery known only to the priesthood. One spends ten years in preparation to be a scribe."

"We'll teach you a new method which will have every citizen of the State reading and writing within a year."

The Tulans gaped at him.

He moved ponderously over to Roberts, drew from its scabbard the sword bayonet the other had at his hip. He took it and slashed savagely at a stone pillar, gouging a heavy chunk from it. He tossed the weapon to Reif, whose eyes lit up.

"What metals have you been using? Copper, bronze? Probably. Well, that's steel. You're going to move into the iron age overnight."

He turned to Taller. "Are your priests also in charge of the health of your people?" he growled. "Are their cures obtained from mumbo-jumbo and a few herbs found in the desert? Within a decade, I'll guarantee you

that not one of your major diseases will remain.''

He turned to the priest and said, ''Or perhaps this will be the clincher for some of you. How many years do you have, *old man*?''

Mynor said with dignity, ''I am sixty-four.''

Plekhanov said churlishly, ''And I am two hundred and thirty-three.'' He called to Stevens, ''I think you're our youngest. How old are you?''

Stevens grinned, ''Hundred and thirteen, next month.''

Mynor opened his mouth, closed it again. No man but would prolong his youth. Of a sudden he felt old, old.

Plekhanov turned back to Taller. ''Most of the progress we have to offer is beyond your capacity to understand. We'll give you freedom from want. Health. We'll give you advances in every art. We'll eventually free every citizen from drudgery, educate him, give him the opportunity to enjoy intellectual curiosity. We'll open the stars to him. All these things the coming of the State will eventually mean to you.''

Tula's Khan was not impressed. ''This you tell us, man from First Earth. But to achieve these you plan to change every phase of our lives and we are happy with ... Tula ... the way it is. I say this to you. There are but eight of you and many, many of us. We do not want your ... State. Return from whence you came.''

Plekhanov shook his massive head at the other. ''Whether or not *you* want these changes they will be made. If you fail to cooperate, we will find someone who will. I suggest you make the most of it.''

Taller arose from the squat stool upon which he'd been seated. ''I have listened and I do not like what you have said. I am Khan of all the People. Now leave in peace, or I shall order my warriors ...''

''Joe,'' Plekhanov said flatly. ''Watson!''

Joe Chessman took his heavy gun from its holster and triggered it twice. The roar of the explosions reverberated thunderously in the confined space, deafening all, and terrifying the Tulans. Bright red colored the robes the Khan wore, colored them without beauty. Bright red splattered the floor.

Leonid Plekhanov stared at his second in command, wet his thick lips. ''Joe,'' he sputtered. ''I hadn't ... I didn't expect you to be so ... hasty.''

Joe Chessman growled, ''We've got to let them know where we stand, right now, or they'll never hold still for us. Cover the doors, Watson, Roberts.'' He motioned to the others with his head. ''Cogswell, Hawkins, Stevens, get to those windows and watch.''

Taller was a crumbled heap on the floor. The other Texcocans stared at his body in shocked horror.

All expect Reif.

Reif bent down over his father's body for a moment, and then looked up, his lips white, at Plekhanov. ''He is dead.''

Leonid Plekhanov collected himself. ''Yes.''

Reif's cold face was expressionless. He looked at Joe Chessman who stood stolidly to one side, gun still in hand.

Reif said, ''You can supply such weapons to my armies?''

Plekhanov said, ''That is our intention, in time.''

Reif came erect. ''Subject to the approval of the clan leaders, I am now Khan. Tell me more of this State of which you have spoken.''

IV.

The sergeant stopped the small company about a quarter of a mile from the city of Bari. His detachment numbered only ten but they were well armed with short swords and blunderbusses and wore mail and steel helmets. On the face of it, they would have been a match for ten times this number of merchants.

It was hardly noon but the sergeant had obviously already been at his wine flask. He leered at them. "And where do you think you go?"

The merchant who led the rest was a thin little man but he was richly robed and astride a heavy black mare. He said, "To Bari, soldier." He drew a paper from a pouch. "I hold this permission from Baron Mannerheim to pass through his lands with my people and chattels."

The leer turned mercenary. "Unfortunately, city man, I can't read. What do you carry on the mules?"

"Personal property, which, I repeat, I have permission to transport over Baron Mannerheim's lands free from harassment from his followers." He added, in irritation, "The baron is a friend of mine, fond of the gifts I give him."

One of the soldiers grunted his skepticism, checked the flint on the lock of his piece, then looked at the sergeant suggestively.

The sergeant said, "As you say, merchant, my lord the baron is fond of gifts. Aren't we all? Unfortunately, I have received no word of your group. My instructions are to stop all intruders upon the baron's lands and, if there is resistance, to slay them and confiscate such properties as they may be carrying."

The merchant sighed and reached into a small pouch. The eyes of the sergeant drooped in greed. The hand emerged with two small coins. "As you say," the merchant muttered bitterly, "we are all fond of gifts. Will you do me the honor to drink my health at the tavern tonight?"

The sergeant said nothing, but his mouth slackened and he fondled the hilt of his sword.

The merchant sighed again and dipped once more into the pouch. This time his hand emerged with half a dozen bits of silver. He handed them down to the other, complaining, "How can a man profit in his affairs if every few miles he must pass another outstretched hand?"

The sergeant growled, "You do not seem to starve, city man. Now, on your way. You are fortunate I am too lazy today to bother going through your things. Besides," and he grinned widely, "the baron gave me personal instructions not to bother you."

The merchant snorted, kicked his heels into his beast's sides and led his half dozen followers toward the city. The soldiers looked after them and howled their amusement. The money was enough to keep them soused for days.

When they were out of earshot, Amschel Mayer grinned his amusement back over his shoulder at Jerome Kennedy. "How'd that come off, Jerry?"

The other sniffed, in mock deprecation. "You're beginning to fit into the local merchant pattern better than the real thing. However, just for the record, I had this, ah, grease gun, trained on them all the time."

Mayer frowned. "Only in extreme emergency, my dear Jerry. The baron would be up in arms if he found a dozen of his men massacred on the outskirts of Bari, and we don't want a showdown at this stage. It's taken nearly a year to build this part we act."

At this time of day the gates of the port city were open and the guards lounged idly. Their captain recognized Amschel Mayer and did no more than nod respectfully.

They wended their way through narrow, cobblestoned streets, avoiding the crowds in the central market area. They pulled up eventually before a house both larger and more ornate than its neighbors. Mayer and Kennedy dismounted from the horses and left their care to the others.

Mayer beat with the heavy knocker on the door and a slot opened for a quick check of his identity. The door opened wide and Technician Martin Gunther let them in.

"The others are here already?" Mayer asked him.

Gunther nodded. "Since breakfast. Baron Leonar, in particular, is impatient."

Mayer said over his shoulder, "All right, Jerry, this is where we put it to them."

They entered the long conference room. A full score of men sat about the heavy wooden table. Most of them were as richly garbed as their host. Most of them in their middle years. All of them alert of eye. All of them confidently at ease.

* * * * *

Amschel Mayer took his place at the table's end and Jerome Kennedy sank into the chair next to him. Mayer took the time to speak to each of his guests individually, then he leaned back and took in the gathering as a whole. He said, "You probably realize that this group consists of the twenty most powerful merchants on the continent."

Olderman nodded. "We have been discussing your purpose in bringing us together, Honorable Mayer. All of us are not friends." He twisted his face in amusement. "In fact, very few of us are friends."

"There is no need for you to be," Mayer said snappishly, "but all are going to realize the need for co-operation. Honorables, I've just come from the city of Ronda. Although I'd paid heavily in advance to the three barons whose lands I crossed. I had to bribe myself through a dozen roadblocks, had to pay exorbitant rates to cross three ferries, and once had to fight off supposed bandits."

One of his guests grumbled, "Who were actually probably soldiers of the local baron who had decided that although you had paid him transit fee, it still might be profitable to go through your goods."

Mayer nodded. "Exactly, my dear Honorable, and that is why we've gathered."

Olderman had evidently assumed spokesmanship for the others. Now he said warily, "I don't understand."

"Genoa, if you'll pardon the use of this name to signify the planet upon which we reside, will never advance until trade has been freed from these bandits who call themselves lords and barons."

Eyebrows reached for hairlines.

Olderman's eyes darted about the room, went to the doors. "Please," he said, "the servants."

"My servants are safe," Mayer said.

One of his guests was smiling without humor. "You seem to forget, Honorable Mayer, that I carry the title of baron."

Mayer shook his head. "No, Baron Leonar. But neither do you disagree with what I say. The businessman, the merchant, the manufacturer on Genoa today, is only tolerated. Were it not for the fact that the barons have no desire to eliminate such a profitable source of income, they would milk us dry overnight."

Someone shrugged. "That is the way of things. We are lucky to have wrested, bribed and begged as many favors from

the lords as we have. Our twenty cities all have charters that protect us from complete despoilation.''

Mayer twisted excitedly in his chair. ''As of today, things begin to change. Jerry, that platen press.''

Jerry Kennedy left the room momentarily and returned with Martin Gunther and two of the servants. While the assembled merchants looked on, in puzzled silence, Mayer's assistants set up the press and a stand holding two fonts of fourteen-point type. Jerry took up a printer's stick and gave running instructions as he demonstrated. Gunther handed around pieces of the type until all had examined it, while his colleague set up several lines. Kennedy transposed the lines to a chase, locked it up and placed the form to one side while he demonstrated inking the small press, which was operated by a foot pedal. He mounted the form in the press, took a score of sheets of paper and rapidly fed them, one by one. When they were all printed, he stopped pumping and Gunther handed the still wet finished product around to the audience.

Olderman stared down at the printed lines, scowled in concentration, wet his lips in sudden comprehension.

But it was merchant Russ who blurted, ''This will revolutionize the inscribing of books. Why, it can well take it out of the hands of the Temple! With such a machine I could make a hundred books—''

Mayer was beaming. ''Not a hundred, Honorable, but a hundred thousand!''

The others stared at him as though he was demented. ''A hundred thousand,'' one said. ''There are not that many literate persons on the continent.''

''There will be,'' Mayer crowed. ''This is but one of our levers to pry power from the barons. And here is another.'' He turned to Russ. ''Honorable Russ, your city is noted for the fine quality of its steel, of the swords and armor you produce.''

Russ nodded. He was a small man fantastically rich in his attire. ''This is true, Honorable Mayer.''

Mayer said, tossing a small booklet to the other, ''I have here the plans for a new method of making steel from pig iron. The Bessemer method, we'll call it. The principle involved is the oxidation of the impurities in the iron by blowing air through the molten metal.''

Amschel Mayer turned to still another. ''And your town is particularly noted for its fine textiles.'' He looked to his assistants. ''Jerry, you and Gunther bring in those models of the power loom and the spinning jenny.''

While they were gone, he said, ''My intention is to assist you to speed up production. With this in mind, you'll appreciate the automatic flying shuttle that we'll now demonstrate.''

Kennedy and Gunther re-entered accompanied by four servants and a mass of equipment. Kennedy muttered to Amschel Mayer, ''I feel like the instructor of a handicrafts class.''

Half an hour later, Kennedy and Gunther wound up passing out pamphlets to the awed merchant guests. Kennedy said, ''This booklet will give details on construction of the equipment and its operation.''

Mayer pursed his lips. ''Your people will be able to assimilate only so fast, so we won't push them. Later, you'll be interested in introducing the mule spinning frame, among other items.''

He motioned for the servants to remove the printing press and textile machinery.

"We now come to probably the most important of the devices I have to introduce to you today. Because of size and weight, I've had constructed only a model. Jerry!"

Jerry Kennedy brought to the heavy table a small steam engine, clever in its simplicity. He had half a dozen attachments for it. Within moments he had the others around him, as enthusiastic as a group of youngsters with a new toy.

"By the Supreme," Baron Leonar blurted, "do you realize this device could be used instead of waterpower to operate a mill to power the loom demonstrated an hour ago?"

Honorable Russ was rubbing the side of his face thoughtfully. "It might even be adapted to propel a coach. A coach without horses. Unbelievable!"

Mayer chuckled in excitement and clapped his hands. A servant entered with a toy wagon which had been slightly altered. Martin Gunther lifted the small engine, placed it in position atop the wagon, connected it quickly and threw a lever. The wagon moved smoothly forward, the first engine-propelled vehicle of Genoa's industrial revolution.

Martin Gunther smiled widely at Russ. "You mean like this, Honorable?"

Half an hour later they were re-seated, before each of them a small pile of pamphlets, instructions, plans, blueprints.

Mayer said, "I have just one more device to bring to your attention at this time. I wish it were unnecessary but I am afraid otherwise."

He held up for their inspection, a forty-five-caliber bullet. Jerry Kennedy handed around samples to the merchants. They fingered them in puzzlement.

"Honorables," Mayer said, "the barons have the use of gunpowder. Muskets and muzzleloading cannon are available to them both for their wars against each other and their occasional attacks upon our supposedly independent cities. However, this is an advancement on their weapons. This unit includes not only the bullet's lead, but the powder and the cap which will explode it."

They lacked understanding, and showed it.

Mayer said, "Jerry, if you'll demonstrate."

Jerry Kennedy said, "The bullet can be adapted to various weapons, however, this is one of the simplest." He pressed, one after another, a full twenty rounds into the gun's clip.

"Now, if you'll note the silhouette of a man I've drawn on the wooden frame at the end of the room." He pressed the trigger, sent a single shot into the figure.

Olderman nodded. "An improvement in firearms. But—"

Kennedy said, "However, if you are confronted with more than one of the bad guys." He grinned and flicked the gun to full automatic and in a Götterdämmerung of sound in the confines of the room, emptied the clip into his target sending splinters and chips flying and all but demolishing the wooden backdrop.

His audience sat back in stunned horror at the demonstration.

Mayer said now, "The weapon is simple to construct, any competent gunsmith can do it. It is manifest, Honorables, that with your people so equipped your cities will be safe from attack and so will trading caravans and ships."

Russ said shakily, "Your intention is good, Honorable Mayer, however it will be but a matter of time before the barons have solved the secrets of your weapon. Such

cannot be held indefinitely. Then we would again be at their mercy."

"Believe me, Honorable," Mayer said dryly, "by that time I will have new weapons to introduce, if necessary. Weapons that make this one a very toy in comparison."

Olderman resumed his office as spokesman. "This demonstration has astounded us, Honorable Mayer, but although we admire your abilities it need hardly be pointed out that it seems unlikely all this could be the product of one brain."

"They are not mine," Mayer admitted. "They are the products of many minds."

"But where—?"

The Earthman shook his head. "I don't believe I will tell you now."

"I see." The Genoese eyed him emotionlessly. "Then the question becomes, *why*?"

Mayer said, "It may be difficult for you to see, but the introduction of each of these will be a nail in feudalism's coffin. Each will increase either production or trade and such increase will lead to the overthrow of feudal society."

Baron Leonar, who had remained largely silent throughout the afternoon, now spoke up. "As you said earlier, although I am a lord myself, my interests are your own. I am a merchant first. However, I am not sure I want the changes these devices will bring. Frankly, Honorable Mayer, I am satisfied with my world as I find it today."

Amschel Mayer smiled wryly at him. "I am afraid you *must* adapt to these new developments."

The baron said coldly, "Why? I do not like to be told I must do something."

"Because, my dear baron, there are three continents on the planet of Genoa. At present there is little trade due to inadequate shipping. But the steam engine I introduce today will soon propel larger craft than you have ever built before."

Russ said, "What has this to do with our being forced to use these devices?"

"Because I have colleagues on the other continents busily introducing them. If you don't adapt, in time competitors will invade your markets, capture your trade, drive you out of business."

Mayer wrapped it up. "Honorables, modernize or go under. It's each man for himself and the devil take the hindmost, if you'll allow a saying from another era."

They remained silent for a long period. Finally Olderman stated bluntly, "The barons are not going to like this."

Jerry Kennedy grinned. "Obviously, that's why we've introduced you to the tommy gun. It's not going to make any difference if they like it or not."

Russ said musingly, "Pressure will be put to prevent the introduction of this equipment."

"We'll meet it," Mayer said, shifting happily in his seat.

Russ added, "The Temple is ever on the side of the barons. The monks will fight against innovations that threaten to disturb the present way."

Mayer said, "Monks usually do. How much property is in the hands of the Temple?"

Russ admitted sourly, "The monks are the greatest landlords of all. I would say at least one third of the land and the serfs belong to the Temple."

"Ah," Mayer said. "We must investigate the possibilities of a Reformation. But that can come later. Now I wish to expand on my reason for gathering you.

"Honorables, Genoa is to change rapidly. To survive, you will have to move fast.

I have not introduced these revolutionary changes without self-interest. Each of you are free to use them to his profit, however, I expect a thirty per cent interest."

There was a universal gasp.

Olderman said, "Honorable Mayer, you have already demonstrated your devices. What is there to prevent us from playing you false?"

Mayer laughed. "My dear Olderman, I have other inventions to reveal as rapidly as you develop the technicians, the workers, capable of building and operating them. If you cheat me now, you will be passed by next time."

Russ muttered, "Thirty per cent! Your wealth will be unbelievable."

"As fast as it accumulates, Honorables, it shall be invested. For instance, I have great interest in expanding our inadequate universities. The advances I expect will only be possible if we educate the people. Field serfs are not capable of running even that simple steam engine Jerry demonstrated."

Baron Leonar said, "What you contemplate is mind-shaking. Do I understand that you wish a confederation of all our cities? A joining together to combat the strength of the present lords?"

Mayer was shaking his head. "No, no. As the barons lose power, each of your cities will strengthen and possibly expand to become nations. Perhaps some will unite. But largely you will compete against each other and against the nations of the other continents. In such competition you'll have to show your mettle, or go under. Man develops at his fastest when pushed by such circumstance."

The Earthling looked off, unseeing, into a far corner of the room. "At least, so is my contention. Far away from here a colleague is trying to prove me wrong. We shall see."

V.

Leonid Plekhanov returned to the *Pedagogue* with a certain ceremony. He was accompanied by Joe Chessman, Natt Roberts and Barry Watson of his original group, but four young, hard-eyed, hard-faced and armed Tulans were also in the party. Their space lighter swooped in, nestled to the *Pedagogue's* hull in the original bed it had occupied on the trip from Terra City, and her port opened to the corridors of the mother ship.

Plekhanov, flanked by Chessman and Watson, strode heavily toward the ship's lounge. Natt Roberts and two of the Tulans remained with the small boat. Two of the other natives followed, their eyes darting here, there, in amazement, in spite of their efforts to appear grim and untouched by it all.

Amschel Mayer was already seated at the officer's dining table. His face displayed his irritation at the other's method of presenting himself. "Good Heavens, Plekhanov, what is this, an invasion?"

The other registered surprise.

Mayer indicated the Texcocans. "Do you think it necessary to bring armed men aboard the *Pedagogue*? Frankly, I have not even revealed to a single Genoese the existence of the ship."

Jerry Kennedy was seated to one side, the only member of Mayer's team who had accompanied him for this meeting. Kennedy winked at Watson and Chessman. Watson grinned back but held his peace.

Plekhanov sank into a chair, rumbling, "We hold no secrets from the Texcocans. The sooner they advance to where they can use our libraries and laboratories, the better. And the fact these boys are armed has no significance. My Tulans are currently

embarked on a campaign to unite the planet. Arms are sometimes necessary, and Tula, my capital, is somewhat of an armed camp. All able-bodied men—"

Mayer broke in heatedly, "And is this the method you use to bring civilization to Texcoco? Is this what you consider the purpose of the Office of Galactic Colonization? An armed camp! How many persons have you slaughtered thus far?"

"Easy," Joe Chessman growled.

Amschel Mayer spun on him. "I need no instruction from you, Chessman. Please remember I'm senior in charge of this expedition and as such rank you."

Plekhanov thudded a heavy hand on the table. "I'll call my assistants to order, Mayer, if I feel it necessary. Admittedly, when this expedition left Terra City you were the ranking officer. Now, however, we've divided—at your suggestion, please remember. Now there are two independent groups and you no longer have jurisdiction over mine."

"Indeed!" Mayer barked. "And suppose I decide to withhold the use of the *Pedagogue's* libraries and laboratories to you? I tell you, Plekhanov—"

Leonid Plekhanov interrupted him coldly. "I would not suggest you attempt any such step, Mayer."

Mayer glared but suddenly reversed himself. "Let's settle down and become more sensible. This is the first conference of the five we have scheduled. Ten years have elapsed. Actually, of course, we've had some idea of each other's progress since team members occasionally meet on trips back here to the *Pedagogue* to consult the library. I am afraid, my dear Leonid, that your theories on industrialization are rapidly being proven inaccurate."

"Nonsense!"

Mayer said smoothly, "In the decade past, my team's efforts have more than tripled the Genoese industrial potential. Last week one of our steamships crossed the second ocean. We've located petroleum and the first wells are going down. We've introduced a dozen crops that had disappeared through misadventure to the original colonists. And, oh yes, our first railroad is scheduled to begin running between Bari and Ronda next spring. There are six new universities and in the next decade I expect fifty more."

"Very good, indeed," Plekhanov grumbled.

"Only a beginning. The breath of competition, of unharnessed enterprise is sweeping Genoa. Feudalism crumbles. Customs, mores and traditions that have held up progress for a century or more are now on their way out."

Joe Chessman growled, "Some of the boys tell me you've had a few difficulties with this crumbling feudalism thing. In fact, didn't Buchwald barely escape with his life when the barons on your western continent united to suppress all chartered cities?"

Mayer's thin face darkened. "Never fear, my dear Joseph, those barons responsible for shedding the blood of western hemisphere elements of progress will shortly pay for their crimes."

"You've got military problems too, then?" Barry Watson asked.

Mayer's eyes went to him in irritation. "Some of the free cities of Genoa are planning measures to regain their property and rights on the western hemisphere. This has nothing to do with my team, except, of course, in so far as they might sell them supplies or equipment."

The lanky Watson laughed lowly, "You mean like selling them a few quick-firing

breech-loaders and trench mortars?"

Plekhanov muttered, "That'll be enough, Barry."

But Mayer's eyes had widened. "How did you know?" He whirled on Plekhanov. "You're spying on my efforts, trying to negate my work!"

Plekhanov rumbled, "Don't be a fool, Mayer. My team has neither the time nor interest to spy on you."

"Then how did you know—"

Barry Watson said mildly, "I was doing some investigation in the ship's library. I ran into evidence that you people had already used the blueprints for breech-loaders and mortars."

Jerry Kennedy came to his feet and rambled over to the messroom's bar. "This seems to be all out spat, rather than a conference to compare progress," he said. "Anybody for a drink? Frankly, that's the next thing I'm going to introduce to Genoa, some halfway decent likker. Do you know what those benighted heathens drink now?"

Watson grinned. "Make mine whisky, Jerry. You've no complaints. Our benighted heathens have a national beverage fermented from a plant similar to cactus. Ought to be drummed out of the human race."

He spoke idly, forgetful of the Tulan guards stationed at the doorway.

* * * * *

Kennedy passed drinks around for everyone save Mayer, who shook his head in distaste. If only for a brief spell, some of the tenseness left the air while the men from Earth sipped their beverages.

Jerry Kennedy said, "Well, you've heard our report. How go things on Texcoco?"

"According to plan," Plekhanov rumbled.

Mayer snorted.

Plekhanov said ungraciously, "Our prime effort is now the uniting of the total population into one strong whole, a super-state capable of accomplishing the goals set us by the Co-ordinator."

Mayer sneered, "Undoubtedly, this goal of yours, this super-state, is being established by force."

"Not always," Joe Chessman said. "Quite a few of the tribes join up on their own. Why not? The State has a lot to offer."

"Such as what?" Kennedy said mildly.

Chessman looked at him in irritation. "Such as advanced medicine, security from famine, military protection from more powerful nations. The opportunity for youth to get an education and find advancement in the State's government—if they've got it on the ball."

"And what happens if they don't *have it on the ball*?"

Chessman growled, "What happens to such under any society? They get the dirty-end-of-the-stick jobs." His eyes went from Kennedy to Mayer. "Are you suggesting you offer anything better?"

Mayer said, "Already on most of Genoa it is a matter of free competition. The person with ability is able to profit from it."

Joe Chessman grunted sour amusement. "Of course, it doesn't help to be the son of a wealthy merchant or a big politician."

Plekhanov took over. "In *any* society the natural leaders come to the top in much the same manner as the big ones come to the top in a bin of potatoes, they just work their way up."

Jerry Kennedy finished his drink and said easily, "At least, those at the top can claim they're the biggest potatoes. Remem-

ber back in the twentieth century when Hitler and his gang announced they were the big potatoes in Germany and men of Einstein's stature fled the country—being small potatoes, I suppose."

Amschel Mayer said, "We're getting away from the point. Pray go on, my dear Leonid. You say you are forcibly uniting all Texcoco."

"We are uniting all Texcoco," Plekhanov corrected with a scowl. "Not always by force. And that is by no means our only effort. We are ferreting out the most intelligent of the assimilated peoples and educating them as rapidly as possible. We've introduced iron ..."

"And use it chiefly for weapons," Kennedy murmured.

"... Antibiotics and other medicines, a field agriculture, are rapidly building roads..."

"Military roads," Kennedy mused.

"... To all sections of the State, have made a beginning in naval science, and, of course, haven't ignored the arts."

"On the face of it," Mayer nodded, "hardly approaching Genoa."

Plekhanov rumbled indignantly, "We started two ethnic periods behind you. Even the Tulans were still using bronze, but the Genoese had iron and even gunpowder. Our advance is a bit slow to get moving, Mayer, but when it begins to roll—"

Mayer gave his characteristic snort. "A free people need never worry about being passed by a subjected one."

Barry Watson made himself another drink and while doing so looked over his shoulder at Amschel Mayer. "It's interesting the way you throw about that term *free*. Just what type of government do you sponsor?"

Mayer snapped, "Our team does not interfere in governmental forms, Watson. The various nations are free to adapt to whatever local conditions obtain. They range from some under feudalistic domination to countries with varying degrees of republican democracy. Our base of operations in the southern hemisphere is probably the most advanced of all the chartered cities, Barry. It amounts to a city-state somewhat similar to Florence during the Renaissance."

"And your team finds itself in the position of the Medici, I imagine."

"You might use that analogy. The Medici might have been, well, tyrants of Florence, dominating her finances and trade as well as her political government, but they were benevolent tyrants."

"Yeah," Watson grinned. "The thing about a benevolent tyranny, though, is that it's up to the tyrants to decide what's benevolent. I'm not so sure there's a great basic difference between your governing of Genoa and ours of Texcoco."

"Don't be an ass," Mayer snapped. "We are granting the Genoese political freedoms as fast as they can assimilate them."

Joe Chessman growled, "But I imagine it's surprising to find just how slowly they can assimilate. A moment ago you said they were free to form any government they wished. Now you say you feed them what you call freedom, only so fast as they can assimilate it."

"Obviously we encourage them along whatever path we think will most quickly develop their economies," Mayer argued. "That's what we've been sent here to do. We stimulate competition, encourage all progress, political as well as economic."

Plekhanov lumbered to his feet. "Amschel, obviously nothing new has been

added to our respective positions by this conference. I propose we adjourn to meet again at the end of the second decade."

Mayer said, "I suppose it would be futile to suggest you give up this impossible totalitarian scheme of yours and reunite the expedition."

Plekhanov merely grunted his disgust.

Jerry Kennedy said, "One thing. What stand have you taken on giving your planet immortality?"

"Immortality?" Watson said. "We haven't it to give."

"You know what I mean. It wouldn't take long to extend the life span double or triple the present."

Amschel Mayer said, "At this stage progress is faster with the generations closer together. A man is pressed when he knows he has only twenty or thirty years of peak efficiency. We on Earth are inclined to settle back and take life as it comes; you younger men are all past the century mark, but none have bothered to get married as yet."

"Plenty of time for that," Watson grinned.

"That's what I mean. But a Texcocan or Genoese feels pressed to wed in his twenties, or earlier, to get his family under way."

"There's another element," Plekhanov muttered. "The more the natives progress the more nearly they'll equal our abilities. I wouldn't want anything to happen to our overall plans. As it is now, their abilities taper off at sixty and they reach senility at seventy or eighty. I think until the end we should keep it this way."

"A cold-blooded view," Kennedy said. "If we extended their life expectancy, their best men would live to be of additional use to planet development."

"But they would not have our dream," Plekhanov rumbled. "Such men might try to subvert us, and, just possibly, might succeed."

"I think Leonid is right," Mayer admitted with reluctance.

* * * * *

Later, in the space lighter heading back for Genoa, Mayer said speculatively, "Did you notice anything about Leonid Plekhanov?"

Kennedy was piloting. "He seems the same irascible old curmudgeon he's always been."

"It seems to me he's become a touch power mad. Could the pressures he's under cause his mind to slip? Obviously, all isn't peaches and cream in that attempt of his to achieve world government on Texcoco."

"Well," Kennedy muttered, "all isn't peaches and cream with us, either. The barons are far from licked, especially in the west." He changed the subject. "By the way, that banking deal went through in Pola. I was able to get control."

"Fine," Mayer chuckled. "You must be quite the richest man in the city. There is a certain stimulation in this financial game, Jerry, isn't there?"

"Uh huh," Jerry told him. "Of course, it doesn't hurt to have a marked deck."

"Marked deck?" the other frowned.

"It's handy that gold is the medium of exchange on Genoa," Jerry Kennedy said. "Especially in view of the fact that we have a machine on the ship capable of transmuting metals."

VI.

Leonid Plekhanov, Joseph Chessman, Barry Watson, Khan Reif and several of the Tulan army staff stood on a small knoll overlooking a valley of several square miles. A valley dominated on all sides but the sea

by mountain ranges.

Reif and the three Earthlings were bent over a military map depicting the area. Barry Watson traced with his finger.

"There are only two major passes into this valley. We have this one, they dominate that."

Plekhanov was scowling, out of his element and knowing it. "How many men has Mynor been able to get together?"

Watson avoided looking into the older man's face. "Approximately half a million according to Hawkins' estimate. He flew over them this morning."

"Half a million!"

"Including the nomads, of course," Joe Chessman said. "The nomads fight more like a mob than an army."

Plekhanov was shaking his massive head. "Most of them will melt away if we continue to avoid battle. They can't feed that many men on the countryside. The nomads in particular will return home if they don't get a fight soon."

Watson hid his impatience. "That's the point, sir. If we don't break their power now, in a decisive defeat, we'll have them to fight again, later. And already they've got iron swords, the crossbow and even a few muskets. Given time and they'll all be so armed. Then the fat'll be in the fire."

"He's right," Joe Chessman said sourly.

Reif nodded his head. "We must finish them now, if we can. The task will be twice as great next year."

Plekhanov grumbled in irritation. "Half a million of them and something like forty thousand of our Tulans."

Reif corrected him. "Some thirty thousand Tulans, all infantrymen." He added, "And eight thousand allied cavalry only some of whom can be trusted." Reif's ten-year-old son came up next to him and peered down at the map.

"What's that child doing here?" Plekhanov snapped.

Reif looked into the other's face. "This is Taller Second, my son. You from First Earth have never bothered to study our customs. One of them is that a Khan's son participates in all battles his father does. It is his training."

Watson was pointing out features on the map again. "It will take three days for their full army to get in here." He added with emphasis, "In retreat, it would take them the same time to get out."

Plekhanov scowled heavily. "We can't risk it. If we were defeated, we have no reserve army. We'd have lost everything." He looked at Joe Chessman and Watson significantly. "We'd have to flee back to the *Pedagogue*."

Reif's face was expressionless.

Barry Watson looked at him. "We won't desert you, Reif, forget about that aspect of it."

Reif said, "I believe you, Barry Watson. You are a ... soldier."

Dick Hawkins' small biplane zoomed in, landed expertly at the knoll's foot. The occupant vaulted out and approached them at a half run.

Hawkins called as soon as he was within shouting distance. "They're moving in. Their advance cavalry units are already in the pass."

When he was with them, Plekhanov rubbed his hand nervously over heavy lips. He rumbled, "The cavalry, eh? Listen, Hawkins, get back there and dust them. Use the gas."

The pilot said slowly, "I have four bullet holes in my wings."

"Bullet holes!" Joe Chessman snapped.

Hawkins turned to him. "By the looks

of things, MacBride's whole unit has gone over to the rebels. Complete with their double-barreled muskets. A full thousand of them."

Watson looked frigidly at Leonid Plekhanov. "You insisted on issuing guns to men we weren't sure of."

Plekhanov grumbled, "Confound it, don't use that tone of voice with me. We have to arm our men, don't we?"

Watson said, "Yes, but our still comparatively few advanced weapons shouldn't go into the hands of anybody but trusted citizens of the State, certainly not to a bunch of mercenaries. The only ones we can *really* trust even among the Tulans, are those that were kids when we first took over. The one's we've had time to indoctrinate."

"The mistake's made. It's too late now," Plekhanov said. "Hawkins go back and dust those cavalrymen as they come through the pass."

Reif said, "It was a mistake, too, to allow them the secret of the crossbow."

Plekhanov roared, "I didn't *allow* them anything. Once the crossbow was introduced it was just a matter of time before its method of construction got to the enemy."

"Then it shouldn't have been introduced," Reif said, his eyes unflinching from the Earthman's.

Plekhanov ignored him. He said, "Hawkins, get going on that dusting. Watson, pull what units we already have in this valley back through the pass we control. We'll avoid battle until more of their army has fallen away."

Hawkins said with deceptive mildness, "I just told you those cavalrymen have muskets. To fly low enough to use gas on them, I'd get within easy range. Point one, this is the only aircraft we've built. Point two, MacBride is probably dead, killed when those cavalrymen mutinied. Point three, I came on this expedition to help modernize the Texcocans, not to die in battle."

Plekhanov snarled at him. "Coward, eh?" He turned churlishly to Watson and Reif. "Start pulling back our units."

Barry Watson looked at Chessman. "Joe?"

Joe Chessman shook his head slowly. He said to Reif, "Khan, start bringing your infantry through the pass. Barry, we'll follow your plan of battle. We'll anchor one flank on the sea and concentrate what cavalry we can trust on the hills on the right. That's the bad spot, that right flank has to hold."

Plekhanov's thick lips trembled. He said in fury, "Is this insubordination?"

Reif turned on his heel and followed by young Taller and his staff hurried down the knoll to where their horses were tethered.

Chessman said to Hawkins, "If you've got the fuel, Dick, maybe it'd be a good idea to keep them under observation. Fly high enough, of course, to avoid gunfire."

Hawkins darted a look at Plekhanov, turned and hurried back to his plane.

Joe Chessman, his voice sullen, said to Plekhanov, "We can't afford any more mistakes, Leonid. We've had too many already." He said to Watson, "Be sure and let their cavalry units scout us out. Allow them to see that we're entering the valley too. They'll think they've got us trapped."

"They will have!" Plekhanov roared. "I countermand that order, Watson! We're withdrawing."

Barry Watson raised his eyebrows at Joe Chessman.

"Put him under arrest," Joe growled sourly. "We'll decide what to do about it later."

* * * * *

By the third day, Mynor's rebel and nomad army had filed through the pass and was forming itself into battle array. Rank upon rank upon rank.

The Tulan infantry had taken less than half a day to enter. They had camped and rested during the interval, the only action being on the part of the rival cavalry forces.

Now the thirty thousand Tulans went into their phalanx and began their march across the valley.

Joe Chessman, Hawkins, Roberts, Stevens and Khan Reif and several of his men again occupied the knoll which commanded a full view of the terrain. With binoculars and wrist radios from the *Pedagogue* they kept in contact with the battle.

Below, Barry Watson walked behind the advancing infantry. There were six divisions of five thousand men each, twenty-four foot *sarissas* stretched before their sixteen man deep line. Only the first few lines were able to extend their weapons; the rest gave weight and supplied replacements for the advanced lines' casualties. Behind them all the Tulan drums beat out the slow, inexorable march.

Cogswell, beside Watson with the wrist radio, said excitedly, "Here comes a cavalry charge, Barry. Reif says right behind it the nomad infantry is coming in." Cogswell cleared his throat. "All of them."

Watson held up a hand in signal to his officers. The phalanx ground to a halt, received the charge on the hedge of *sarissas*. The enemy cavalry wheeled and attempted to retreat to the flanks but were caught in a bloody confusion by the pressure of their own advancing infantry.

Cogswell, his ear to the radio, said, "Their main body of horse is hitting our right flank." He wet his lips. "We're outnumbered there something like ten to one. At least ten to one."

"They've got to hold," Watson said. "Tell Reif and Chessman that flank has to hold."

The enemy infantrymen in their hundreds of thousands hit the Tulan line in a clash of deafening military thunder. Barry Watson resumed his pacing. He signaled to the drummers who beat out another march. The phalanx moved forward slowly, and slowly went into an echelon formation, each division slightly ahead of the one following. Of necessity, the straight lines of the nomad and rebel front had to break.

The drums went *boom*, ah, *boom*, ah, *boom*, ah, *boom*.

The Tulan phalanx moved slowly, obliquely across the valley. The hedge of spears ruthlessly pressed the mass of enemy infantry before them.

The sergeants paced behind, shouting over the din. "Dress it up. You there, you've been hit, fall out to the rear."

"I'm all right," the wounded spearman snarled, battle lust in his voice.

"Fall out, I said," the sergeant roared. "You there, take his place."

The Tulan phalanx ground ahead.

One of the sergeants grinned wanly at Barry Watson as his men moved forward with the preciseness of the famed Rockettes of another era. "It's working," he said proudly.

Barry Watson snorted, "Don't give me credit. It belongs to a man named Philip of Macedon, a long ways away in both space and time."

Cogswell called, "Our right flank cavalry is falling back. Joe wants to know if you can send any support."

Watson's face went expressionless. "No," he said flatly. "It's got to hold. Tell Joe

and the Khan it's got to hold. Suggest they throw in those cavalry units they're not sure of. The ones that threatened mutiny last week."

Joe Chessman stood on the knoll flanked by the Khan's ranking officers and the balance of the Earthmen. Natt Roberts was on the radio. He turned to the others and worriedly repeated the message.

Joe Chessman looked out over the valley. The thirty-thousand-man phalanx was pressing back the enemy infantry with the precision of a machine. He looked up the hillside at the point where the enemy cavalry was turning the right flank. Given cavalry behind the Tulan line and the battle was lost.

"O.K., boys," Chessman growled sourly, "we're in the clutch now. Hawkins!"

"Yeah," the pilot said.

"See what you can do. Use what bombs you have including the napalm. Fly as low as you can in the way of scaring their horses." He added sourly, "Avoiding scaring ours, if you can."

"You're the boss," Hawkins said, and scurried off toward his scout plane.

Joe Chessman growled to the others, "When I was taking my degree in primitive society and primitive military tactics, I didn't exactly have this in mind. Come on!"

It was the right thing to say. The other Earthmen laughed and took up their equipment, submachine guns, riot guns, a flame thrower, grenades, and followed him up the hill toward the fray.

Chessman said over his shoulder to Reif, "Khan, you're in the saddle. You can keep in touch with both Watson and us on the radio."

Reif hesitated only a moment. "There is no need for further direction of the battle from this point. A warrior is of more value now than a Khan. Come my son." He caught up a double-barreled musket and followed the Earthmen. The ten years old Taller scurried after with a revolver.

Natt Roberts said, "If we can hold their cavalry for only another half hour, Watson's phalanx will have their infantry pressed up against the pass they entered by. It took them three days to get through it, they're not going to be able to get out in hours."

"That's the idea," Joe Chessman said dourly, "Let's go."

VII.

Amschel Mayer was incensed.

"What's got into Buchwald and MacDonald?" he spat.

Jerry Kennedy, attired as was his superior in fur trimmed Genoese robes, signaled one of the servants for a refilling of his glass and shrugged.

"I suppose it's partly our own fault," he said lightly. He sipped the wine, made a mental note to buy up the rest of this vintage for his cellars before young Mannerheim or someone else did so.

"Our fault!" Mayer glared.

The old boy was getting decreasingly tolerant as the years went by, Kennedy decided. He said soothingly, "You sent Peter and Fred over there to speed up local development. Well, that's what they're doing."

"Are you insane!" Mayer squirmed in his chair. "Did you read this radiogram? They've squeezed out all my holdings in rubber, the fastest growing industry on the western continent. Why, millions are involved. Who do they think they are?"

Kennedy put down his glass and chuckled. "See here, Amschel, we're developing this planet by encouraging free competition. Our contention is that under such a socio-economic system the best men are

brought to the lead and benefit all society by the advances they make."

"So! What has this got to do with MacDonald and Buchwald betraying my interests?"

"Don't you see? Using your own theory, you have been set back by someone more efficiently competitive. Fred and Peter saw an opening and, in keeping with your instructions, moved in. It's just coincidence that the rubber they took over was your property rather than some Genoese operator's. If you were open to a loss there, then if they hadn't taken over someone else could have. Possibly Baron Leonar or even Russ."

"That reminds me," Mayer snapped, "our Honorable Russ is getting too big for his britches in petroleum. Did you know he's established a laboratory in Amerus? Has a hundred or more chemists working on new products."

"Fine," Kennedy said.

"Fine! What do you mean? Dean is our man in petroleum."

"Look here, if Russ can develop the industry even faster than Mike Dean, let him go ahead. That's all to our advantage."

Mayer leaned forward and tapped his assistant emphatically on the knee. "Look here, yourself, Jerry Kennedy. At this stage we don't want things getting out of our hands. A culture is in the hands of those who control the wealth; the means of production, distribution, communication. Theirs is the real power. I've made a point of spacing our men about the whole planet. Each specializes, though not exclusively. Gunther is our mining man, Dean heads petroleum, MacDonald shipping, Buchwald textiles, Rykov steel, and so forth. As fast as this planet can assimilate we push new inventions, new techniques, often whole new sciences, into use. Meanwhile, you and I sit back and dominate it all through that strongest of power mediums, finance."

Jerry Kennedy nodded. "I wouldn't worry about old man Russ taking over Dean's domination of oil, though. Mike's got the support of all the *Pedagogue's* resources behind him. Besides, we've got to let these Genoese get into the act. The more the economy expands, the more capable men we need. As it is, I think we're already spread a little too thin."

Amschel Mayer had dropped the subject. He was reading the radiogram again and scowling his anger. "Well, this cooks MacDonald and Buchwald. I'll break them."

His assistant raised his eyebrows. "How do you mean?"

"I'm not going to put up with my subordinates going against my interests."

"In this case, what can you do about it? Business is business."

"You hold quite a bit of their paper, don't you?"

"You know that. Most of our team's finances funnel through my hands."

"We'll close them out. They've become too obsessed with their wealth. They've forgotten why the *Pedagogue* was sent here. I'll break them, Jerry. They'll come crawling. Perhaps I'll send them back to the *Pedagogue*. Make them stay aboard as crew."

Kennedy shrugged. "Well, Peter MacDonald's going to hate that. He's developed into quite a high liver—gourmet food, women, one of the swankiest estates on the eastern continent."

"Ha!" Mayer snorted. "Let him go back to ship's rations and crew's quarters."

A servant entered the lushly furnished room and announced, "Honorable Gunther calling on the Honorables Mayer and

Kennedy."

Martin Gunther hurried into the room, for once his calm ruffled. "On the western continent," he blurted. "Dean and Rosetti. The Temple got them, they've been burned as witches."

Amschel Mayer shot to his feet. "That's the end," he swore shrilly. "Only in the west have the barons held out. I thought we'd slowly wear them down, take over their powers bit by bit. But this does it. This means we fight."

He spun to Kennedy. "Jerry, make a trip out to the *Pedagogue*. You know the extent of Genoa's industrial progress. Seek out the most advanced weapons this technology could produce."

Kennedy came to his own feet, shocked by Gunther's news. "But, Amschel, do you think it's wise to precipitate an intercontinental war? Remember, we've been helping to industrialize the west, too. It's almost as advanced as our continent. Their war potential isn't negligible."

"Nevertheless," Mayer snapped, "we've got to break the backs of the barons and the Temple monks. Get messages off to Baron Leonar and young Mannerheim, to Russ and Olderman. We'll want them to put pressure on their local politicians. What we need is a continental alliance for this war."

Gunther said, "Should I get in touch with Rykov? He's still over there."

Mayer hesitated. "No," he said. "We'll keep Nick informed but he ought to remain where he is. We'll still want our men in the basic positions of power after we've won."

"He might get hurt," Gunther scowled. "They might get him too, and we've only got six team members left now."

"Nonsense, Nick Rykov can take care of himself."

Jerry Kennedy was upset. "Are you sure about this war, chief? Isn't a conflict of this size apt to hold up our overall plans?"

"Of course not," Mayer scoffed. "Man makes his greatest progress under pressure. A major war will unite the nations of both the western continent and this one as nothing else could. Both will push their development to the utmost."

He added thoughtfully, "Which reminds me. It might be a good idea for us to begin accumulating interests in such industries as will be effected by a war economy."

Jerry Kennedy chuckled at him, "Merchant of death."

"What?"

"Nothing," Kennedy said. "Something I read about in a history book."

VIII.

At the decade's end, once again the representatives of the Genoese team were first in the *Pedagogue's* lounge. Mayer sat at the officer's table, Martin Gunther at his right. Jerry Kennedy leaned against the ship's bar, sipping appreciatively at a highball.

They could hear the impact of the space boat from Texcoco when it slid into its bed.

"Poor piloting," Gunther mused. "Whoever's doing that flying doesn't get enough practice."

They could hear ports opening and then the sound of approaching feet. The footsteps had a strangely military ring.

Joe Chessman entered, followed immediately by Barry Watson, Dick Hawkins and Natt Roberts. They were all dressed in heavy uniform, complete with decorations. Behind them were four Texcocans, including Reif and his teen-age son Taller.

Mayer scowled at them in way of greeting. "Where's Plekhanov?"

"Leonid Plekhanov is no longer with us," Chessman said dourly. "Under pressure his mind evidently snapped and he made decisions that would have meant the collapse of the expedition. He resisted when we reasoned with him."

The four members of the Genoese team stared without speaking. Jerry Kennedy put down his glass at last. "You mean you had to restrict him? Why didn't you bring him back to the ship!"

Chessman took a chair at the table. The others assumed standing positions behind him. "I'm afraid we'll have to reject your views on the subject. Twenty years ago this expedition split into two groups. My team will accomplish its tasks, your opinions are not needed."

Amschel Mayer glared at the others in hostility. "You have certainly come in force this time."

Chessman said flatly, "This is all of us, Mayer."

"All of you! Where are Stevens, Cogswell, MacBride?"

Barry Watson said, "Plekhanov's fault. Lost in the battle that broke the back of the rebels. At least Cogswell and MacBride were. Stevens made the mistake of backing Plekhanov when the showdown came."

Joe Chessman looked sourly at his military chief. "I'll act as team spokesman, Barry."

"Yes, sir," Watson said.

"Broke the back of the rebels," Jerry Kennedy mused. "That opens all sorts of avenues, doesn't it?"

Chessman growled. "I suppose that in the past twenty years your team had no obstacles. Not a drop of blood shed. Come on, the truth. How many of your team has been lost?"

Mayer shifted in his chair. "Possibly your point is well taken. Dean and Rosetti were burned by the formerly dominant religious group. Rykov was killed in a fracas with bandits while he was transporting some gold." He added, musingly, "We lost more than half a million Genoese pounds in that robbery."

"Only three men lost, eh?"

Mayer stirred uncomfortably, then flushed in irritation at the other's tone. "Something has happened to Buchwald and MacDonald. They must be insane. They've broken off contact with me, are amassing personal fortunes in the eastern hemisphere."

Hawkins laughed abruptly. "Free competition," he said.

Chessman growled, "Let's halt this bickering and get to business. First let me introduce Reif, Texcocan State Army Chief of Staff and his son Taller. And these other Texcocans are Wiss and Fokin, both of whom have gone far in the sciences."

The Tulans shook hands, Earth style, but then stepped to the rear again where they followed the conversation without comment.

Mayer said, "You think it wise to introduce natives to the *Pedagogue*?"

"Of course," Chessman said. "Following this conference, I'm going to take Fokin and Wiss into the library. What're we here for if not to bring these people up to our level as rapidly as possible?"

"Very well," Mayer conceded grudgingly. "And now I have a complaint. When the *Pedagogue* first arrived we had only so many weapons aboard. You have appropriated more than half in the past two decades."

Chessman shrugged it off. "We'll return the greater part to the ship's arsenal. At this stage we are producing our own."

"I'll bet," Kennedy said. "Look, any of you fellows want a real Earthside whisky? When we were crewing this expedition, why didn't we bring someone with a knowledge of distilling, brewing and such?"

Mayer snapped at him, "Jerry, you drink too much."

"The hell I do," the other said cheerfully. "Not near enough."

Barry Watson said easily, "A drink wouldn't hurt. Why're we so stiff? This is the first get-together for ten years. Jerry, you're putting on weight."

Kennedy looked down at his admittedly rounded stomach. "Don't get enough exercise," he said, then reversed the attack. "You look older. Are your taking your rejuvenation treatments?"

Barry Watson grimaced. "Sure, but I'm working under pressure. It's been one long campaign."

Kennedy passed around the drinks.

Dick Hawkins laughed. "It's been one long campaign, all right. Barry has a house as big as a castle and six or eight women in his harem."

Watson flushed, but obviously without displeasure.

Martin Gunther, of the Genoese team, cocked his head. "Harem?"

Joe Chessman said impatiently, "Man adapts to circumstances, Gunther. The wars have lost us a lot of men. Women are consequently in a surplus. If the population curve is to continue upward, it's necessary that a man serve more than one woman. Polygamy is the obvious answer."

Gunther cleared his throat smoothly, "So a man in Barry's position will have as many as eight wives, eh? You must have lost a *good many* men."

Watson grinned modestly. "Everybody doesn't have that many. It's according to your ability to support them, and, also, rank has its privileges. Besides, we figure it's a good idea to spread the best seed around. By mixing our blood with the Texcocan we improve the breed."

Behind him, Taller, the Tulan boy, stirred, without notice.

* * * * *

Kennedy finished off his highball and began to build another immediately. "Here we go again. The big potatoes coming to the top."

Watson flushed. "What do you mean by that, Kennedy?"

"Oh, come off it, Barry," Kennedy laughed. "Just because you're in a position to push these people around doesn't make you the prize stud on Texcoco."

Watson elbowed Dick Hawkins to one side in his attempt to get around the table at the other.

Chessman rapped, "Watson! That's enough. Knock it off or I'll have you under arrest." The Texcocan team head turned abruptly to Mayer and Kennedy. "Let's stop this nonsense. We've come to compare progress. Let's begin."

The three members of the Genoese team glared back in antagonism, but then Gunther said grudgingly, "He's right. There is no longer amiability between us, so let's forget about it. Perhaps when the fifty years is up, things will be different. Now let's merely be businesslike."

"Well," Mayer said, "our report is that progress accelerates. Our industrial potential expands at a rate that surprises even us. In the near future we'll introduce the internal combustion engine. Our universities still multiply and are turning out technicians, engineers, scientists at an ever-quickening speed. In several nations illiteracy is practically unknown and per capita

production increases almost everywhere." Mayer paused in satisfaction, as though awaiting the others to attempt to top his report.

Joe Chessman said sourly, "Ah, almost everywhere per capita production increases. Why *almost*?"

Mayer snapped, "Obviously, in a system of free competition, all cannot progress at once. Some go under."

"Whole nations?"

"Temporarily whole nations can receive setbacks as a result of defeat in war, or perhaps due to lack of natural resources. Some nations progress faster than others."

Chessman said, "The whole Texcocan State is one great unit. Everywhere the gross product increases. Within the foreseeable future the standard of living will be excellent."

Jerry Kennedy, an alcoholic lisp in his voice now, said, "You mean you've accomplished a planet-wide government?"

"Well, no. Not as yet," Chessman's sullen voice had an element of chagrin in it. "However, there are no strong elements left that oppose us. We are now pacifying the more remote areas."

"Sounds like a rather bloody program—especially if Barry Watson, here, winds up with eight women," Martin Gunther said.

Watson started to say something but Chessman held up a restraining hand. "The Texcocan State is too strong to be resisted, Gunther. It is mostly a matter of getting around to the more remote peoples. As soon as we bring in a new tribe, we convert it into a commune."

"Commune!" Kennedy blurted.

Joe Chessman raised his thick eyebrows at the other. "The most efficient socio-economic unit at this stage of development. Tribal society is perfectly adapted to fit into such a plan. The principal difference between a tribe and a commune is that under the commune you have the advantage of a State above in a position to give you the benefit of mass industries, schools, medical assistance. In return, of course, for a certain amount of taxes, military levies and so forth."

Martin Gunther said softly, "I recall reading of the commune system as a student, but I fail to remember the supposed advantages."

Chessman growled, "They're obvious. You have a unit of tens of thousands of persons. Instead of living in individual houses, each with a man working while the woman cooks and takes care of the home, all live in community houses and take their meals in messhalls. The children are cared for by trained nurses. During the season all physically capable adults go out en masse to work the fields. When the harvest has been taken in, the farmer does not hole up for the winter but is occupied in local industrial projects, or in road or dam building. The commune's labor is never idle."

Kennedy shuddered involuntarily.

Chessman looked at him coldly. "It means quick progress. Meanwhile, we go through each commune and from earliest youth, locate those members who are suited to higher studies. We bring them into State schools where they get as much education as they can assimilate—more than is available in commune schools. These are the Texcocans we are training in the sciences."

"The march to the anthill," Amschel Mayer muttered.

Chessman eyed him scornfully. "You amuse me, old man. You with your talk of building an economy with a system of free competition. Our Texcocans are sacrificing

today but their children will live in abundance. Even today, no one starves, no one goes without shelter nor medical care." Chessman twisted his mouth wryly. "We have found that hungry, cold or sick people cannot work efficiently."

He stared challengingly at the Genoese leader. "Can you honestly say that there are no starving people in Genoa? No inadequately housed, no sick without hope of adequate medicine? Do you have economic setbacks in which poorly planned production goes amuck and depressions follow with mass unemployment?"

"Nevertheless," Mayer said with unwonted calm, "our society is still far ahead of yours. A mere handful of your bureaucracy and military chiefs enjoy the good things of life. There are tens of thousands on Genoa who have them. Free competition has its weaknesses, perhaps, but it provides a greater good for a greater number of persons."

Joe Chessman came to his feet. "We'll see," he said stolidly. "In ten years, Mayer, we'll consider the position of both planets once again."

"Ten years it is," Mayer snapped back at him.

Jerry Kennedy saluted with his glass. "Cheers," he said.

* * * * *

On the return to Genoa Amschel Mayer said to Kennedy, "Are you sober enough to assimilate something serious?"

"Sure, chief, of course."

"Hm-m-m. Well then, begin taking the steps necessary for us to place a few men on Texcoco in the way of, ah, intelligence agents."

"You mean some of our team?" Kennedy said, startled.

"No, of course not. We can't spare them, and, besides, there'd be too big a chance of recognition and exposure. Some of our more trusted Genoese. Make the monetary reward enough to attract their services." He looked at his lieutenants significantly. "I think you'll agree that it might not be a bad idea to keep our eyes on the developments on Texcoco."

* * * * *

On the way back to Texcoco, Barry Watson said to his chief, "What do you think of putting some security men on Genoa, just to keep tabs?"

"Why?"

Watson looked at his fingers, nibbled at a hangnail. "It just seems to me it wouldn't hurt any."

Chessman snorted.

Dick Hawkins said, "I think Barry's right. They can bear watching. Besides in another decade or so they'll realize we're going to beat them. Mayer's ego isn't going to take that. He'd go to just about any extreme to keep from losing face back on Earth."

Natt Roberts said worriedly, "I think they're right, Joe. Certainly it wouldn't hurt to have a few Security men over there. My department could train them and we'd ferry them over in this space boat."

"I'll make the decisions," Chessman growled at them. "I'll think about this. It's just possible that you're right though."

Behind them, Reif looked thoughtfully at his teen-age son.

IX.

Down the long palace corridor strode Barry Watson, Dick Hawkins, Natt Roberts, the aging Reif and his son Taller, now in the prime of manhood. Their faces were equally wan from long hours without sleep. Half a dozen Tulan infantrymen brought up their rear.

As they passed Security Police guards, to left and right, eyes took in their weapons, openly carried. But such eyes shifted and the guards remained at their posts. Only one sergeant opened his mouth in protest. "Sir," he said to Watson, hesitantly, "you are entering Number One's presence armed."

"Shut up," Natt Roberts rapped at him.

Reif said, "That will be all, sergeant."

The Security Police sergeant looked emptily after them as they progressed down the corridor.

Together, Watson and Reif motioned aside the two Tulan soldiers who stood before the door of their destination, and pushed inward without knocking.

Joe Chessman looked up wearily from his map and dispatch laden desk. For a moment his hand went to the heavy military revolver at his right but when he realized the identity of his callers, it fell away.

"What's up now?" he said, his voice on the verge of cracking.

Watson acted as spokesman. "It's everywhere the same. The communes are on the fine edge of revolt. They've been pushed too far; they've got to the point where they just don't give a damn. A spark and all Texcoco goes up in flames."

Reif said coldly, "We need immediate reforms. They've got to be pacified. An immediate announcement of more consumer goods, fewer State taxes, above all a relaxation of Security Police pressures. Given immediate promise of these, we might maintain ourselves."

Joe Chessman's sullen face was twitching at the right corner of his mouth. Young Taller made no attempt to disguise his contempt at the other's weakness in time of stress.

Chessman's eyes went around the half circle of them. "This is the only alternative? It'll slow up our heavy industry program. We might not catch up with Genoa as quickly as planned."

Watson gestured with a hand in quick irritation. "Look here, Chessman, don't we get through to you? Whether or not we build up a steel capacity as large as Amschel Mayer's isn't important now. Everything's at stake."

"Don't talk to me that way, Barry," Chessman growled truculently. "I'll make the decisions. I'll do the thinking." He said to Reif, "How much of the Tulan army is loyal?"

The aging Tulan looked at Watson before turning back to Joe Chessman. "All of the Tulan army is loyal—to me."

"Good!" Chessman pushed some of the dispatches on his desk aside, letting them flutter to the floor. He bared a field map. "If we crush half a dozen of the local communes ... crush them hard! Then the others..."

Watson said very slowly and so low as hardly to be heard, "You didn't bother to listen, Chessman. We told you, all that's needed is a spark."

Joe Chessman sat back in his chair, looked at them all again, one by one. Reevaluating. For a moment the facial tic stopped and his eyes held the old alertness.

"I see," he said. "And you all recommend capitulation to their demands?"

"It's our only chance," Hawkins said. "We don't even know it'll work. There's always the chance if we throw them a few crumbs they'll want the whole loaf. You've got to remember that some of them have been living for twenty-five years or more under this pressure. The valve is about to blow."

"I see," Chessman grunted. "And what

else? I can see in your faces there's something else."

The three Earthmen didn't answer. Their eyes shifted.

He looked to young Taller and then to Reif. "What else?"

"We need a scapegoat," Reif said without expression.

Joe Chessman thought about that. He looked to Barry Watson again.

Watson said, "The whole Texcocan State is about to topple. Not only do we have to give them immediate reform, but we're going to have to blame the past hardships and mistakes on somebody. Somebody has to take the rap, be thrown to the wolves. If not, maybe we'll all wind up taking the blame."

"Ah," Chessman said. His red-rimmed eyes went around them again, thoughtfully. "We should be able to dig up a few local chieftains and some of the Security Police heads."

They shook their heads. "It has to be somebody big," Natt Roberts said thickly, "a few of my Security Police won't do it."

Joe Chessman's eyes went to Reif. "The Khan is the highest ranking Texcocan of all," he said, finally. "The Khan and some Security Police heads would satisfy them."

Reif's face was as frigid as the Earthman's. He said, "I am afraid not, Joseph Chessman. You are Number One. It is your statue that is in every commune square. It is your portrait that hangs in every distribution center, every messhall, every schoolroom. You are the Number One—as you have so often pointed out to us. My title has become meaningless."

Joe Chessman spat out a curse, fumbled the gun into his hand and fired before the Tulan soldiers could get to him. In a moment they had wrested the weapon from his hand and had his arms pinioned. It was too late.

Reif had been thrown backward two paces by the blast of the heavy-calibered gun. Now he held a palm over his belly and staggered to a chair. He collapsed into it, looked at his son, let a wash of amusement pass over his face, said, "Khan," meaninglessly, and died.

Natt Roberts shrilled at Chessman, "You fool, we were going to give you a big, theatrical trial. Sentence you to prison and then, later, claim you'd died in your cell and smuggle you out to the *Pedagogue*."

Watson snapped to the guards, "Take him outside and shoot him."

The Tulans began dragging the snarling, cursing Chessman to the door.

Taller said, "A moment, please."

Watson, Roberts and Hawkins looked to him.

Taller said, "This perhaps can be done more effectively."

His voice was completely emotionless. "This man has killed both my father and grandfather, both of them Khans of Tula, heads of the most powerful city on all Texcoco, before the coming of you Earthlings."

The guards hesitated. Watson detained them with a motion of his hand.

Taller said, "I suggest you turn him over to me, to be dealt with in the traditional way of the People."

"No," Chessman said hoarsely. "Barry, Dick, Natt, send me back to the *Pedagogue*. I'll be out of things there. Or maybe Mayer can use me on Genoa."

They didn't bother to look in his direction. Roberts muttered savagely, "We told you all that was needed was a spark. Now you've killed the Khan, the most popular man on Texcoco. There's no way of saving

you."

Taller said, "None of you have studied our traditions, our customs. But now, perhaps, you will understand the added effect of my taking charge. It will be a more ... profitable manner of using the downfall of this ... this power mad murderer."

Chessman said desperately, "Look, Barry, Natt, if you have to, shoot me. At least give me a man's death. Remember those human sacrifices the Tulans had when we first arrived? Can you imagine what went on in those temples? Barry, Dick—for old time's sake, boys ..."

Barry Watson said to Taller, "He's yours. If this doesn't take the pressure off us, nothing will."

X.

At the end of the third decade, the Texcocan delegation was already seated in the *Pedagogue's* lounge when Jerome Kennedy, Martin Gunther, Peter MacDonald, Fredric Buchwald and three Genoese, Baron Leonar and the Honorables Russ and Modrin appeared.

The Texcocan group consisted of Barry Watson, Dick Hawkins and Natt Roberts to one side of him, Generalissimo Taller and six highly bemedaled Texcocans on the other.

Before taking a seat Barry Watson barked, "Where's Amschel Mayer? I've got some important points to cover with him."

"Take it easy," Kennedy slurred. "For that matter, where's Joe Chessman?"

Watson glared at the other. "You know where he is."

"That I do," Kennedy said. "He's purged, to use a term of yesteryear. At the rate you laddy-bucks are going, there won't be anything left of you by the time our half century is up." He snapped his fingers and a Genoese servant who'd been inconspicuously in the background, hurried to his side. "Let's have some refreshments here. What'll everybody have?"

"You act as though you've had enough already," Watson bit out.

Kennedy ignored him, insisted on everyone being served before he allowed the conversation to turn serious. Then he said, slyly, "I see we've been successful in apprehending all of your agents, or you'd know more of our affairs."

"Not all our agents," Watson barked. "Only those on your southern continent. What happened to Amschel Mayer?"

Peter MacDonald, who, with Buchwald, was for the first time attending one of the decade-end conferences, had been hardly recognized in his new girth by the Texcocan team. But his added weight had evidently done nothing to his keenness of mind. He said smoothly, "Our good Amschel is under arrest. Imprisoned, in fact." He shook his head, his double chin wobbling. "A tragedy."

"Imprisoned! By whom?" Taller scowled. "I don't like this. After all, he was your expedition's head man."

Barry Watson rapped, "Don't leave us there, MacDonald. What happened to him?"

MacDonald explained. "The financial and industrial empire he had built was overextended. A small crisis and it collapsed. Thousands of investors suffered. In brief, he was arrested and found guilty."

Watson was unbelieving. "There is nothing you could do? The whole team! Couldn't you bribe him out? Rescue him by force and get him back to the ship? With all the wealth you characters control—"

Jerry Kennedy laughed shortly. "We were busy bailing ourselves out of our own situations, Watson. You don't know what

international finance can be. Besides, he dug his grave ... uh ... that is, he made his bed."

Kennedy signaled the servant for another drink, said, "Let's cut out this dismal talk. How about our progress reports?"

"Progress reports," Barry Watson said. "That's a laugh. You have agents on Texcoco, we have them on Genoa. What's the use of having these conferences at all?"

For the first time, one of the Genoese put in a word. Baron Leonar, son of the original Baron who had met with Amschel Mayer thirty years before, was a man in his mid-forties. He said quietly, "It seems to me the time has arrived when the two planets might profit by intercourse. Surely in this time one has progressed beyond the other in this field, but lagged in that. If I understand the mission of the *Pedagogue* it is to bring us to as high a technological level as possible in half a century. Already three decades have passed."

The Texcocans studied him thoughtfully, but Jerry Kennedy waved in negation with the hand that held his glass. "You don't get it, Baron. You see, the thing is we wanta find out what system is going to do the most the quickest. If we co-operate with Barry's gang, everything'll get all mixed up."

The Honorable Russ, now a wizened man of at least seventy, but still sharply alert, said, "However, Texcoco and Genoa might both profit."

Kennedy said happily, "What do we care? You gotta take the long view. What we're working out here is going to be used on half a million planets eventually." He tried to snap his fingers. "These two lousy planets don't count that much." He succeeded in snapping them this time. "Not that much."

Barry Watson said, "You're stoned, Kennedy."

"Why not?" Kennedy grinned. "Finally perfected a decent brandy. I'll have to send you a few cases, Barry."

"How would you go about that, Jerry?" Watson said softly.

"Shucks, man, our space lighter makes a trip to Texcoco every month or so. Gotta keep up with you boys. Maybe throw a wrench or so in the works once inna while."

Peter MacDonald said, "Shut up, Jerry. You talk too much."

"Don't talk to me that way. You'll find yourself having one helluva time floating that loan you need next month. How about another drink, everybody? This party's dead."

Watson said, "How about the progress reports? Briefly, we've all but completely united Texcoco. Minor setbacks have sometimes deterred us but the march of progress goes on. We—"

"Minor setbacks," Kennedy chortled. "Must of had to bump off five million of the poor slobs before that commune revolt was finished with."

Watson said coldly, "We always have a few reactionaries, religious fanatics, misfits, crackpots, malcontents to deal with. However, these are not important. Our industrial potential has finally begun to roll. We doubled steel production this year, will do the same next. Our hydro-electric installations tripled in the past two years. Coal production is four times higher, lumber production six times. We expect to increase grain harvest forty per cent next season. And—"

The Honorable Modrin put in gently, "Please, Honorable Watson, your percentage figures are impressive only if we know from what basis you start. If you produced but five million tons of steel last year, then

your growth to ten million is very good but it is still not a considerable amount for an entire planet."

Buchwald said dryly, "If our agents are correct, Texcocan steel production is something like a quarter of our own. I assume your other basic products are at about the same stage of development."

Watson flushed. "The thing to remember is that our economy continues to grow each year. Yours spurts and stops, jerks ahead a few steps, then grinds to a halt or even retreats. Everything comes to a pause if you few on the top stop making a profit; all that counts in your economy is making money. Which reminds me, how in the world did you ever get out of that planet-wide depression you were in three years ago?"

Peter MacDonald grunted his disgust. "Planet-wide depression, indeed. A small recession. A temporary readjustment due to overextension in certain economic and financial fields."

From the other side of the table, Dick Hawkins laughed at him. "Where'd you pick up that line of gobbledygook, Peter?" he asked.

Peter MacDonald came to his feet. "I don't have to put up with this sort of impudence," he snapped.

Watson lurched to his own feet. "Nor do we have to listen to your snide cracks about the real progress Texcoco is making. We don't seem to be getting anywhere." He snapped to his associates, "Hawkins, Taller, Roberts! Let's go. Ten years from now, there'll be another story to tell. Even a blind man will see the difference."

They marched down the *Pedagogue's* corridor toward their space boat.

Kennedy called after them, "Ten years from now every family on Genoa'll have a car. Wait'll you see. Television, too. We're introducing TV next year. An' civil aviation. Be all over the place in two, three years—"

The Texcocans slammed the spaceport after them.

Kennedy sloshed some more drink into his glass. "Slobs can't stand the truth," he explained to the others.

XI.

With the exception of a few additional delegates composed of high-ranking Texcocan and Genoese political and scientific heads, the line-up at the end of forty years was the same as ten years earlier—except for the absence of Jerry Kennedy.

Extra tables had been set up, and chairs to accommodate the added numbers. To one side were the Genoese: Martin Gunther, Fredric Buchwald, Peter MacDonald, with such repeat delegates as Baron Leonar and the Honorables Modrin and Russ and half a dozen newcomers. On the other were Barry Watson, Dick Hawkins and Natt Roberts, Taller and such Texcocans as the scientists Wiss and Fokin, army heads, Security Police officials and other notables.

Note pads had been placed before each of them and both Watson and Gunther were equipped with gavels.

While chairs were still being shuffled, Barry Watson said over the table to Gunther, "Jerry?"

Martin Gunther shrugged "Jerry's indisposed. As a matter of fact, he's at one of the mountain sanitariums, taking a cure. He'll be all right."

"Good," Dick Hawkins said. "We've lost too many."

Watson pounded with his gavel. "Let's come to order. Gunther do you have anything to say in the way of preliminaries?"

"Not especially. I believe we all know

where we stand, including the newcomers from Genoa and Texcoco. In brief, this is the fourth meeting of the Earth teams that were sent to these two planets to bring backward colonists to an industrialized culture. It would seem that we are both succeeding—possibly at different rates. Forty years have passed, ten remain to us."

For a moment there was silence.

Finally Roberts said, "Possibly you have already discovered this through your agents, but we have released the information on prolonging of life."

Peter MacDonald said wryly, "We, too, were pressured into such a step."

Baron Leonar said, "And why not?"

Taller, across the table from him, nodded.

Martin Gunther tapped twice on the table with his gavel. "The basic reason for our meeting is to report progress and to reconsider the possibilities of new elements having entered into the situation which might cause us to re-examine our policies. I think we already have a fairly good idea of each other's development." His voice went wry. "At least our agents do a fairly good job of reporting yours."

"And ours, yours," Watson rapped.

"However," MacDonald said, "now that we are drawing near the end of our half century, I think it becomes obvious that Amschel Mayer's original contention—that a freely competitive economy grows faster than one restricted by totalitarian bounds—has been proven."

Barry Watson snorted amusement. "Do you?" he said. "To the contrary, MacDonald. The proof is otherwise. On Genoa you still have comparative confusion. True enough, several of your nations, particularly those on your southern continent, are greatly advanced and with a high living and cultural standard—when times are good. But at the same time you have other whole peoples who are little, if any, better off, than when you arrived. On the western continent you even have a few feudalistic regimes that are probably worse off—mostly as a result of the wars you've crippled them with."

Natt Roberts said, his voice musing, "But even that isn't the important thing. The Co-ordinator sent us here to find a *method* of bringing backward cultures to industrialization. Have you got a blueprint to show him, when you return? Can you trace out the history of Genoa for this past half century and say, this war was necessary for progress—but that should have been avoided? Or is this whole *free competition* program of yours actually nothing but chaos which *sometimes* works out wonderfully for *some* nations, but actually destroys others? You have scorned our methods, our collectivized society—but when we return, we'll have a blueprint of how we arrived where we are."

Gunther banged the table with his gavel. "Just a moment. Is there any reason why we have to listen to these accusations when—"

Watson held up a hand, curtly, "Let us finish. If you have something to say, we'll gladly listen when we're through."

Gunther was flushed but he snapped, "Go ahead then, but don't think any of we Genoese are being taken in."

Watson said, "True enough, it took us a time to unite our people ..."

"Time and blood," Peter MacDonald muttered.

"... But once underway the Texcocan State has moved on in a progression unknown in any of the Genoese nations. To industrialize a society you must reach a

certain taking off point, a point where you have sufficient industry, particularly steel, sufficient power, sufficient scientists, technicians and skilled workers. Once that point has been reached you can move in almost a geometric progression. You build a steel mill and with the steel produced you build two more mills the following year, which in turn gives you the material for four the next year.''

Buchwald grunted his disbelief.

Watson looked up and down the line of Genoese, the Earthmen as well as the natives. ''On Texcoco we have now reached that point. We have a trained, eager population of over one billion persons. Our universities are turning out highly trained effectives at the rate of more than twenty million a year. We have located all the raw materials we will need. We are now under way.'' He looked at them in heavy amusement. ''By the end of the next decade we will bury you.''

Martin Gunther said calmly, ''Are you through?''

''Yes. For the time,'' Watson nodded.

''Very well. Then this is *our* progress report. In the past forty years we have eliminated feudalism in all the more advanced countries. Even in the remote areas the pressures of our changing world are bringing them around. The populace of these countries will no longer stand to one side while the standard of living on the rest of Genoa grows so rapidly. On most of our planet, already the average family not only enjoys freedom but a way of life far in advance of that of Texcoco. Already modern housing and household appliances are everywhere. Already both land cars and aircraft are available to the majority. The nations have formed an Inter-Continental League of governments so that it is unlikely that war will ever touch us again. And this is merely a beginning. In ten years, continuing our freely competitive way of developing, all will be living on a scale that only the wealthy can afford today.''

He came to an end and stared antagonistically at the Texcocans.

Taller said, ''There seems to be no agreement.''

Across the table from him the ancient Honorable Russ said, ''It is difficult to measure. We seem to count refrigerators and privately owned automobiles. You seem to ignore personal standards and concentrate on steel tonnage.''

The Texcocan scientist, Wiss, said easily, ''Given the steel mills, and eventually automobiles and refrigerators will run off our assembly lines like water, and will be available for everyone, not just those who can afford to buy them.''

''Hm-m-m, eventually,'' Peter MacDonald laughed nastily.

The atmosphere was suddenly hostile. Hostile beyond anything that had gone before in earlier conferences.

And then Martin Gunther said without inflection, ''I note that you have removed from the *Pedagogue's* library the information dealing with nuclear fission.''

''For the purpose of study,'' Dick Hawkins said smoothly.

''Of course,'' Gunther said. ''Did you plan to return it in the immediate future?''

''I'm afraid our studies will take some time,'' Watson said flatly.

''I was afraid so,'' Gunther said. ''Happily, I took the precaution of making microfilms of the material involved more than a year ago.''

Barry Watson pushed his chair back. ''We seem to have accomplished what was possible by this conference,'' he said. ''If anything.'' He looked to right and left at his

cohorts. "Let's go."

They came stiffly erect. Watson turned on his heel and started for the door.

As they left, Natt Roberts turned for a moment and said to Gunther, "One thing, Martin. During this next ten years you might consider whether or not half a century has been enough to accomplish our task. Should we consider staying on? I would think the Co-ordinator would accept any recommendation along this line that we might make."

The Genoese contingent looked after him, long after he was gone.

Finally Martin Gunther said, "Baron Leonar, I think it might be a good idea if you began putting some of your men to work on making steel alloys suitable for spacecraft. The way things are developing, perhaps we'll be needing them."

Buchwald and MacDonald looked at him unblinkingly.

XII.

It was fifty years to a day since the *Pedagogue* had first gone into orbit about Rigel. Five decades have passed. Half a century.

Of the original crew of the *Pedagogue*, six now gathered in the lounge of the spaceship. All of them had changed physically. Some of them softer to the point of flabbiness; some harder both of body and soul.

Barry Watson, Natt Roberts, Dick Hawkins, of the Texcocan team.

Martin Gunther, Peter MacDonald, Fredric Buchwald, of the Genoese.

The gathering wasn't so large as the one before. Only Taller and the scientist Wiss attended from Texcoco; only Baron Leonar and the son of Honorable Russ from Genoa.

From the beginning they stared with hostility across the conference table. Even the pretense of amiability was gone.

Watson rapped finally, "I am not going to dwell upon the measures you have been taking that can only be construed as military ones aimed eventually at the Texcocan State."

Martin Gunther laughed nastily. "Is your implication that your own people have not taken the same measures, in fact, inaugurated them?"

Watson said, "As I say, I have no intention of even discussing this. Surely we can arrive at no agreement. There is one point, however that we should consider on this occasion."

The corpulent Peter MacDonald wheezed, "Well, out with it!"

Natt Roberts said, "I mentioned the matter to you at the last meeting."

"Ah, yes," Gunther nodded. "Just as you left. We have considered it."

The Texcocans waited for him to go on.

"If I understand you," Gunther said, "you think we should reconsider returning to Terra City at this time."

"It should be discussed," Watson nodded. "Whatever the ... ah ... temporary difficulties between us, the original project of the *Pedagogue* is still our duty."

The three of the Genoese team nodded their agreement.

"And the problem becomes, have we accomplished completely what we set out to do? And, further, is it necessary, or at least preferable, for us to stay on and continue administration of the progress of the Rigel planets?"

They thought about it.

Buchwald said hesitantly, "It has been my own belief that Genoa is not quite ready for us to let loose the ... ah, reins. If we left now, I am not sure—"

Roberts said, "Same applies to Texcoco. The State has made fabulous

strides, but I am not sure what would happen if we leaders were to leave. There might be a complete collapse."

Watson said, "We seem to be in basic agreement. Is a suggestion in order that we extend, for another twenty-five years, at least, this expedition's work?"

Dick Hawkins said, "The Office of Galactic Colonization—"

MacDonald said smoothly, "Will undoubtedly send out a ship to investigate. We shall simply inform them that things are not as yet propitious to our leaving, that another twenty-five years is in order. Since we are on the scene, undoubtedly our recommendation will be heeded."

Watson looked from one Earthman to the next. "We are in agreement?"

Each in turn nodded.

Peter MacDonald said, "And do you all realize that here we have a unique situation that might be exploited for the benefit of the whole race?"

They looked to him, questioningly.

"The dynamic we find in Genoa—and Texcoco, too, for that matter, though we disagree on so many fundamentals—is beyond that in the Solar System. These are new planets, new ambitions are alive. We have at our fingertips man's highest developments, evolved on Earth. But with this new dynamic, this freshness, might we not in time push even beyond old Earth?"

"You mean—" Natt Roberts said.

MacDonald nodded. "What particular of value is gained by our uniting Genoa and Texcoco with the so-called Galactic Commonwealth? Why not press ahead on our own? With the vigor of these new races we might well leave Earth far behind."

Watson mused, "Carrying your suggestion to the ultimate, who is to say that one day Rigel might not become the new center of the human race, rather than Sol?"

"A point well taken," Gunther agreed.

"No," Taller said softly.

The six Earthmen turned hostile eyes to him.

"This particular matter does not concern you, Generalissimo," Watson rapped at him.

Taller smiled his amusement at that and came to his feet.

"No," he said. "I am afraid that hard though it might be for you to give up the powers you have held so long, you Earthlings are going to have to return to Terra City, from whence you came."

Baron Leonar said in gentle agreement, "Obviously."

"What is this?" Watson rapped. "I'm not at all amused."

The Honorable Russ stood also. "There is no use prolonging this. I have heard you Earthlings say, more than once, that man adapts to preserve himself. Very well, we of Genoa and Texcoco are adapting to the present situation. We are of the belief that if you are allowed to remain in power we of the Rigel planets will be destroyed, probably in an atomic holocaust. In self-protection we have found it necessary to unite, we Genoese and Texcocans. We bear you no ill will, far to the contrary. However, it is necessary that you all return to Earth. You have impressed upon us the aforementioned truism that *man adapts* but in the *Pedagogue's* library I have found another that also applies. Power corrupts, and absolute power corrupts absolutely."

There were heavy automatics in the hands of Natt Roberts and Dick Hawkins. Barry Watson leaned back in his chair, his eyes narrow. "How'd you ever expect to get away with this sort of treason, Taller?"

Martin Gunther blurted, "Or you,

Russ?"

Wiss, the Texcocan scientist, held his wrist radio to his mouth and said, "Come in now."

Dick Hawkins thumbed back the hammer of his hand gun.

"Hold it a minute, Dick," Barry Watson said. "I don't like this." To Taller he rapped, "What goes on here? Talk up, you're just about a dead man."

And it was then that they heard the scraping on the outer hull.

The six Earthmen looked at the overhead, dumfounded.

"I suggest you put up your weapons," Taller said quietly. "At this late stage I would hate to see further bloodshed."

In moments they heard the opening and closing of locks and footsteps along the corridor. The door opened and in stepped,

Joe Chessman, Amschel Mayer, Mike Dean, Louis Rosetti, and an emaciated Jerry Kennedy. Their expressions ran the gamut from sheepishness to blank haughtiness.

MacDonald bug-eyed. "Dean ... Rosetti ... the Temple priests burned you at the stake!"

They grinned at him, shamefaced. "Guess not," Dean said. "We were kidnaped. We've been teaching basic science, in some phony monastery."

Watson's face was white. "Joe," he said.

"Yeah," Joe Chessman growled. "You sold me out. But Taller and the Texcocans thought I was still of some use."

Amschel Mayer snapped, bitterly, "And now if you fools will put down your stupid guns, we'll make the final arrangements for returning this expedition to Terra City. Personally, I'll be glad to get away!"

Behind the five resurrected Earthmen were a sea of faces representing the foremost figures of both Texcoco and Genoa in every field of endeavor. At least fifty of them in all.

As though protectively, the eleven Earthmen ganged together at the far side of the messtable they'd met over so often.

Martin Gunther, his expression dazed, said, "I ... I don't—"

Taller resumed his spokesmanship. "From the first the most progressive elements on both Texcoco and Genoa realized the value of your expedition and have been in fundamental sympathy with the aims the *Pedagogue* originally had. Primitive life is not idyllic. Until man is free from nature's tyranny and has solved the basic problems of sufficient food, clothing, shelter, medical care and education for all, he is unable to realize himself. So we co-operated with you to the extent we found possible."

His smile was grim. "I am afraid that almost from the beginning, and on both planets, your very actions developed an ... underground, I believe you call it. Not an overt one, since we needed your assistance to build the new industrialized culture you showed us was possible. We even protected you against yourselves, since it soon became obvious that if left alone you'd destroy each other in your addiction to power."

Baron Leonar broke in, "Don't misunderstand. It wasn't until the past couple of decades that this *underground* which had sprung up independently on both planets, amalgamated."

Barry Watson blurted, "But Joe ... Chessman—" he refused to meet the eye of the man he'd condemned.

Taller said, "From the first you made no effort to study our customs. If you had, you'd have realized why my father allied himself to you after you'd killed Taller First. And

why I did not take my revenge on Chessman after he'd killed Reif. A Khan's first training is that no personal emotion must interfere with the needs of the People. When you turned Joe Chessman over to me, I realized his education, his abilities were too great to destroy. We sent him to a mountain university and have used him profitably all these years. In fact, it was Chessman who finally brought us to space travel."

"That's right," Buchwald blurted. "You've got a spaceship out there. How could you possibly—?"

Taller said mildly, "There are but a handful of you, you could hardly keep track of two whole planets and all that went on upon them."

Amschel Mayer said bitingly, "All this can be gone over on our return to Terra City. We'll have a full year to explain to ourselves and each other why we became such complete idiots. I was originally head of this expedition—before my supposed friends railroaded me to prison—does anyone object if I take over again?"

"No," Joe Chessman growled.

The others shook their heads.

Taller said, "There is but one other thing. In spite of how you may feel at this moment of embarrassment, basically you have succeeded in your task. That is, you have brought Texcoco and Genoa to an industrialized culture. We hold various reservations about how you accomplished this. However, when you return to your Coordinator of Galactic Colonization, please inform him that we are anxious to receive his ambassadors. The term is *ambassadors* and we will expect to meet on a basis of equality. Surely in all Earth's millennia of social evolution man has worked out something better than either of your teams have built here. We should like to be instructed."

Dick Hawkins said stiffly, "We can instruct you on Earth's present socio-economic system."

"I am afraid we no longer trust you, Richard Hawkins. Send others—uncorrupted by power, privilege or great wealth."

* * * * *

When they had gone and the sound of their departing spacecraft had faded, Amschel Mayer snapped, "We might as well get underway. And cheer up, confound it, we have lots of time to contrive a reasonable report for the Co-ordinator."

Jerry Kennedy managed a thin grin, almost reminiscent of the younger Kennedy of the first years on Genoa. "Say," he said, "I wonder if we'll be granted a good long vacation before being sent on another assignment."

THE AFFAIR OF THE BRAINS

Chapter 1 Off to the Rendezvous

THOUGH it is seldom nowadays that Earthmen hear mention of Hawk Carse, there are still places in the universe where his name retains all its old magic. These are the lonely outposts of the farthest planets, and here when the outlanders gather to yarn the idle hours away their tales conjure up from the past that raw, lusty period before the patrol-ships came, and the slender adventurer, gray-eyed and with queer bangs of hair obscuring his forehead, whose steely will, phenomenal ray-gun draw and reckless space-ship maneuverings combined to make him the period's most colorful figure. These qualities of his live again in the outlanders' reminiscences and also of course his score of blood-feuds and the one great feud that

shook whole worlds in its final terrible settling—the feud of Hawk Carse and Dr. Ku Sui.

Again and again the paths of the adventurer and the sinister, brilliant Eurasian crossed, and each crossing makes a rich tale. Time after time Ku Sui, through his several bands of space-pirates, his individual agents and his ambitious web of power insidiously weaving over the universe, whipped his tentacles after the Hawk, and always the tentacles coiled back, repulsed and bloody. An almost typical episode is in the affair which followed what has been called the Exploit of the Hawk and the Kite.

It will be remembered—as related in "Hawk Carse"[1]—that Dr. Ku laid a most ingenious trap for Carse on the latter's ranch on Iapetus, eighth satellite of Saturn. Judd the Kite, pirate and scavenger, was the Eurasian's tool in this plot, which started with a raid on the ranch. The fracas which followed the Hawk's escape from the trap was bloody and grim enough, and resulted in the erasure of Judd and all his men save one; but the important thing to the following affair was that Judd's ship, the Scorpion, fell into Carse's hands with one prisoner and the ship's log, containing the space coordinates for a prearranged assignation of Judd with Ku Sui.

All other projects were postponed by the Hawk at this opportunity to meet Dr. Ku face to face. The trail of the Eurasian was the guiding trail of his life, and swiftly he moved along it.

There was work to be done before he could set out. Three men had emerged alive from the clash between the Hawk and the Kite: Carse himself, Friday, his gigantic negro companion in adventure, and a bearded half-caste called Sako, sole survivor of Judd's crew. Aided sullenly by this man, they first cleaned up the ravaged ranch, burying the bodies of the dead, repairing fences and generally bringing order out of confusion. Then, under Carse's instructions, Friday and the captive brigand tooled the adventurer's own ship, the Star Devil, well into the near-by jungle, while the Hawk returned to theScorpion.

He went into her control cabin, opened her log book and once more scanned what interested him there. The notation ran:

"E.D. (Earth Date) 16 January, E.T. (Earth Time) 2:40 P.M. Meeting ordered by Ku Sui, for purpose of delivering the skeleton and clothing of Carse to him, at N.S. (New System) X-33.7; Y-241.3; Z-92.8 on E.D. 24 January, E.T. 10:20 P.M. Note: the ship is to stand by at complete stop, the radio's receiver open to Ku Sui's private wave (D37, X1293, R3) for further instructions."

He mulled over it, slowly stroking his flaxen bangs. It was a chance, and a good one. Judd's ship would keep that rendezvous, but it would sheathe the talons of the Hawk. This time a trap would be laid for Ku Sui.

THE plan was simple enough, on the face of it, but the Eurasian was a master of cunning as well as a master of science, and high peril attended any matching of wits with him. Carse closed the log, his face bleak, his mind made up. A shuffle of feet brought his gaze up to the port-lock entrance.

Friday, stripped to shorts, a sweat-glistening ebony giant, stood there. Shaking the drops of steaming perspiration from his face, he reported:

"All finished, suh—got the Star Devil in the jungle where you said to hide her. An' now what? You still figurin' on keepin' that date with Dr. Ku in this ship?"

Carse nodded, absently.

"Then where'll we pick up a crew, suh?

Porno? It's the nearest port, I reckon."

"I'm not taking any crew, Eclipse."

Friday gaped in surprise at his master, then found words:

"No crew, suh? Against Ku Sui? We'll be throwin' our lives——"

"I've lost enough men in the last two days," Carse cut in shortly. "And this meeting with Dr. Ku is a highly personal affair. You and I and Sako can run the ship; we've got to." One of the man's rare smiles relaxed his face. "Of course," he murmured, "I'm risking your life, Eclipse. Perhaps I'd better leave you somewhere?"

"Say!" bellowed the negro indignantly.

The Hawk's smile broadened at the spontaneous exclamation of loyalty.

"Very well, then," he said. "Now send Sako to me, and prepare ship for casting off."

But as Friday went aft on a final thorough inspection of all mechanisms, he muttered over and over, "Two of us—against Ku Sui! Two of us!" and he was still very much disturbed when, after Carse had had a few crisp words with the captive Sako, telling him that he would be free but watched and that it would be wise if he confined himself to his duties, the order came through to the engine room:

"Break ground!"

Gently the brigand ship Scorpion stirred. Then, in response to the delicate incline of her space-stick, she lifted sweetly from the crust of Iapetus and at ever-increasing speed burned through the satellite's atmosphere toward the limitless dark leagues beyond.

The Hawk was on the trail!

CARSE took the first watch himself. Except for occasional glances at the banks of instruments, the screens and celestial charts, he spent his time in deep thought, turning over in his mind the several variations of situation his dangerous rendezvous might take.

First, how would Ku Sui contact the Scorpion? Any of three ways, he reasoned: come aboard from his own craft accompanied by some of his men; stay behind and send some men over to receive the remains of the Hawk—for either of which variations he was prepared; or, a third, and more dangerous, direct that the remains of Carse be brought over to his ship, without showing himself or any of his crew.

Whatever variations their contacting took, there was another consideration, Carse's celestial charts revealed, and that was the proximity of the rendezvous to Jupiter's Satellite III, less than three hundred thousand miles. Satellite III harbored Port o' Porno, main refuge and home of the scavengers, the hi-jackers, and out-and-out pirates of space, so many of whom were under Ku Sui's thumb. Several brigand ships were sure to be somewhere in the vicinity, and one might easily intrude, destroying the hairbreadth balance in Carse's favor.

There was peril on every side. The Hawk considered that it would be wise to make provision against the odds proving too great. So, his gray eyes reflective, he strode to the Scorpion's radio panel and a moment later was saying over and over in a toneless voice:

"XX-1 calling XX-2—XX-1 calling XX-2—XX-1 calling XX-2."

AFTER a full two minutes there was still no answer from the loudspeaker. He kept calling: "XX-1 calling XX-2—XX-1 calling XX-2—XX-1 calling——"

He broke off as words in English came softly from the loudspeaker:

"XX-2 answering XX-1. Do you hear

me?"

"Yes. Give me protected connection. Highly important no outsider overhears."

"All right," the gentle voice answered. "Protected. Go ahead, old man."

The Hawk relaxed and his face softened. "How are you, Eliot?" he asked almost tenderly.

"Just fine, Carse," came in the clear, cultured voice of Master Scientist Eliot Leithgow, probably the greatest scientific mind in the solar system, Ku Sui being the only possible exception. He spoke now from his secret laboratory on Jupiter's Satellite III, near Porno, this transcendent genius who, with Friday, was one of Carse's two trusted comrades-in-arms. "I've been expecting you," he went on. "Has something happened?"

"I'm concerned with Ku Sui again," the Hawk told him swiftly. "Please excuse me; I have to be brief. I can't take any chances of his hearing any of this." He related the events of the last two days: Judd's attack on the Iapetus ranch, the subsequent fight and outcome, and finally his present position and intention of keeping the rendezvous. "The odds are pretty heavily against me, M. S.," he went on. "It would be stupid not to admit that I may not come out of this affair alive—and that's why I'm calling. My affairs, of course, are in your hands. You know where my storerooms and papers are. Sell my trading posts and ranches; Hartz of Newark-on-Venus is the best man to deal through. But I'd advise you to keep for yourself that information on the Pool of Radium. Look into it sometime. I'm in Judd's ship, the Scorpion; our Star Devil's on Iapetus, hidden in the jungle near the ranch. That's all, I think."

"Carse, I should be with you!"

"No, M. S.—couldn't risk it. You're too valuable a man. But don't worry, you know my luck. I'll very likely be down to see you after this meeting, and perhaps with a visitor who will enable you once again to return to an honorable position on Earth. Where will you be?"

"In eight Earth days? Let's make it Porno, at the house you know. I'll come in for some supplies and wait for you."

"Good," the Hawk said shortly. "Goodby, M. S."

He paused, his hand on the switch. There came a parting wish:

"Good luck, old fellow. Get him! Get him!"

The Master Scientist's voice trembled at the end. Through Ku Sui he had lost honor, position, home—all good things a man on Earth may have; through Ku Sui he, the gentlest of men, was regarded by Earthlings as a black murderer and there was a price on his head. Hawk Carse did not miss the trembling in his voice. As he switched off, the adventurer's eyes went bleak as the loneliest deeps of space.

Chapter 2 The Coming of Ku Sui

STRAIGHT through the vast cold reaches that stretched between one mighty planet and another the Scorpion arrowed, Carse and Friday standing watch and watch, Sako always on duty with the latter. Behind, Saturn's rings melted smaller, and ahead a dusky speck grew against the vault of space until the red belts and one great seething crimson spot that marked it as Jupiter stood out plainly. By degrees, then, the ship's course was altered as Carse checked his calculations and made minor corrections in speed and direction. So they neared the rendezvous. And a puzzled furrow grew on Friday's brow.

What was bothering his master? In-

stead of becoming more impassive and coldly emotionless as the distance shortened, he showed distinct signs of worry. This might be natural in most men, but it was unusual in the Hawk. Often the negro found him abstractedly smoothing his bangs of hair, pacing the length of the control cabin, glancing, plainly worried, at the visi-screen. What special thing was wrong? Friday wondered again and again—and then, in a flash, he knew.

"Why—how we goin' to see Dr. Ku?" he burst out. "Didn't that Judd say somethin'——"

The Hawk nodded. "That's just the problem, Eclipse. For you'll remember Judd said that Ku Sui 'comes out of darkness, out of empty space.' That might mean invisibility or the Fourth Dimension—and God help us if he's solved the problem of dimensional traveling. I don't know—but it's something I can't well prepare against." He fell to musing again, utterly lost in thought.

A DAY and a half later found Friday genuinely worried—an unusual state for the always cheerful black. The laugh wrinkles of his face were re-twisted into lines of anxiety which gave his face a most solemn and lugubrious expression. From time to time he grasped the butt of his ray-gun with a grip that would have pulped an orange; occasionally his rolling brown eyes sought the gray ones of the Hawk, only to return as by a magnet to the visi-screen, whose five adjoining squares mirrored the whole sweep of space around them.

Jupiter now filled one side of the forward observation window. It was a vast, red-belted disk, an eye-thrilling spectacle at their distance, roughly a million miles. Against it were poised two small pale globes, the larger of which was Satellite III. Several hours before, when they had been closer to the satellite, Carse had scrutinized it through the electelscope and made out above its surface a silver dot which was a space-ship. It was bound inward toward Port o' Porno, and might well have been one of Ku Sui's. But the Scorpion, slowing down for her rendezvous, had attracted no attention and had passed undisturbed.

Now she hung motionless—that is, motionless with respect to the sun. Only the whisper of the air-renewing machinery disturbed the tension in her control cabin where the three men stood waiting, glancing back and forth from the visi-screen to the Earth clock and its calendar attachment. The date the clock showed was 24 January, the time, 10:21 P. M. Dr. Ku Sui was one minute late.

Sako, the captive, was sullen and restless, and made furtive glances at the Hawk, who stood detached, arms hanging carelessly at his sides, gray eyes half closed, giving in his attitude no hint of the strain the others were feeling. But his attitude of being relaxed and off his guard was deceptive—as Sako found out. Suddenly his left hand seemed to disappear; there was a hiss, an arrowing streak of spitting orange light; and Sako was gaping foolishly at the arm he had stealthily raised to one of the radio switches. A smoking sear had appeared as if by magic across it.

Hawk Carse sheathed his gun. "I would advise you to try no more obvious tricks," he said coldly. "Cutting in our microphone is too simple a way to give warning to Dr. Ku Sui. Move away from there. And don't forget your lines when Dr. Ku calls. You will never act a part before a more critical and deadly audience."

Sako mumbled something and rubbed his arm. A pitying smile came to Friday's face as he comprehended what had happened. "You damned fool!" he said.

IT was 10:22 P.M. Still, in the visi-screen, no other ship. Nothing but the giant planet, the smaller satellites poised against it, and the deep star-spangled curtain of black space all around.

They had carefully followed the instructions in the log. They were at the exact place noted there: checked and double-checked. The radio receiver was tuned to the wave-length given in the log. But of Ku Sui, nothing.

And yet, in a way, he was with them. His enigmatic personality, his seldom-seen figure was very present in their minds, and with it were overtones of all the diabolic cunning and suave ironic cruelty that men always associated with him. "He comes out of darkness, out of empty space." Friday licked his lips. He was not built for mental strain: his lips kept drying and his tongue was as leather.

A little sputtering sound tingled the nerves of the three waiting men, and as one their eyes went to the radio loudspeaker. A contact question was being asked in the usual way:

"Are you there, Judd? Are you there, Judd? Are you there, Judd?"

The voice was not that of Ku Sui. It was a dead voice, toneless, emotionless, mechanical.

"Are you there, Judd?" it went on, over and over.

"The mike switch, Friday," the Hawk said, and then was at Sako's side, his ray-gun transfixing the man with its threatening angle. "Play your part well," was the whisper from his lips.

The switch went over with a click. Trembling, Sako faced the microphone.

"This is Sako," he said.

"Sako?" the dead voice asked. "I want Judd. Where is Judd?"

"Judd is dead. The trap failed, and there was a fight on Iapetus. Judd was killed by Carse, and most of the others. Only two of us are left, but we have Carse and the negro, prisoners, alive. What are your instructions?"

A half minute went by, and the three men hardly breathed.

"How do we know you are Sako?" said the voice at last. "Give the recognition."

"The insignia of Dr. Ku Sui?"

"Yes. It is——"

Carse's ray-gun prodded the stomach of the sweating Sako.

"An asteroid," he said hastily, "in the center of a circle of the ten planets."

The unseen speaker was quiet. Evidently he was conferring with someone else, probably Ku Sui.

"All right," his toneless voice came back at last. "You will remain motionless in your present position, keeping your radio receiver open for further instructions. We are approaching and will be with you in thirty minutes."

Carse motioned to Friday to switch off the mike. Sako sank limply into a chair, soaked with perspiration.

"Now we must wait again," the Hawk murmured, crossing his arms and scanning the visi-screen.

THEY had heard from Ku Sui, but that had not answered the old tormenting question of how he would come. It was more puzzling than ever. The visi-screen showed nothing, and it should have shown the Eurasian's decelerating ship even at twice thirty minutes' time away. They looked upon the same vista of Jupiter and his satellites, framed in eternal blackness; there was no characteristic steely dot of an approaching ship to give Carse the enemy's position and enable him to shape his plan

of reception definitely.

Twenty minutes went by. The strain the Hawk was under showed only in his pulling at the bangs of flaxen hair that covered his forehead as far as the eyebrows. He had, from Judd's words, expected a mystery in Ku Sui's approach. There was nothing to do but wait; he had made what few plans and preparations he could in advance.

Friday broke the tense silence in the control cabin. "He's got to be somewhere!" he exploded. "It isn't natural for the screen not to show nothin'! Isn't there somethin' we can do?"

The Hawk was surprisingly patient. "I'm afraid not," he said. "It's invisibility he's using, or else the fourth dimension, as Judd said. But we've got one good chance. He'll send more instructions by radio, and surely, after that, his ship will appear——"

A new voice, bland and unctuous, spoke in the control cabin from behind the three men.

"Not necessarily, my honored friend Carse," it said. "You will observe there is no need for a ship to appear."

Ku Sui had come.

Chapter 3 The Wave of a Handkerchief

HE stood smiling in the door-frame leading aft to the rear entrance port. There was all grace in his posture, in the easy angle at which one arm rested against the side bulkhead, in the casual way in which he held the ray-gun that bored straight at Carse. Height and strength he had, and a perfectly proportioned figure. Beauty, too, of face, with skin of clearest saffron, soft, sensitive mouth and ascetic cheeks. His hair was fine and black, and swept straightly back from the high narrow forehead where lived his tremendous intelligence.

It was his eyes that gave him away, his eyes of rare green that from a distance looked black. Slanting, veiled, unreadable beneath the lowered silky lashes, there was the soul of a tiger in their sinister depths. It was his eyes that his victims remembered.

"So you have arrived, Dr. Ku," whispered Hawk Carse, and for a second he too smiled, with eyes as bleak and hard as frosty chilled steel. Their glances met and held—the cold, hard, honest rapier; the subtle perfumed poison. The other men in the cabin were forgotten; the feeling was between these two. Strikingly contrasted they stood there: Carse, in rough blue denim trousers, faded work-shirt, open at the neck, old-fashioned rubber shoes and battered skipper's cap askew on his flaxen hair; Ku Sui, suavely impeccable in high-collared green silk blouse, full-length trousers of the same material, and red slippers, to match the wide sash which revealed the slender lines of his waist. A perfume hung about the man, the indescribable odor of tsin-tsin flowers from the humid jungles of Venus.

"You see I meet you halfway, my friend," the Eurasian said with delicate mock courtesy. "A surpassing pleasure I have anticipated for a long time. No, no! I see that already I shall have to ask you a small favor. A thousand pardons: it's my deplorable ability to read your mind that requires me to ask it. Your so justly famed speed on the draw might possibly overcome this advantage"—he raised his ray-gun slightly—"and, though I know you would not kill me—save in the direst emergency, since you wish to take me a living prisoner—I would find it most distressing to have to carry for the rest of my life a flaw on my body. So, may I request you to withdraw your ray-guns with two fingertips and put them on the floor? Observe—your fin-

gertips. Will you be so kind?"

THE Hawk looked at him for a minute. Then silently he obeyed. He knew that the Eurasian would have no compunctions about shooting him down in cold blood; but, on the other hand, even as the man had said, he could not kill Ku Sui, but had to capture him, in order to take him to Earth to confess to crimes now blamed on Eliot Leithgow. "Do as he says, Friday," he instructed the still staring negro; and, like a man in a trance, Friday obeyed.

"Thank you," the Eurasian said. "It was a most friendly thing to do." He paused. "I suppose you are wondering how I arrived here, and why you did not see me come. Well, I shall certainly tell you, in return for your favor. But first—ah, friend Carse—your gesture! A reminder, I assume."

Slowly the Hawk was stroking the bangs of hair which had been trained to obscure his forehead. There was no emotion on his chilly face as he answered, no slightest sign of feeling unless it were a slight trembling of the left eyelid—significant enough to those who could read it.

"Yes," he whispered, "a reminder. I do not like to wear my hair like this, Ku Sui, and I want you to know that I've not forgotten; that, though I'm now in your power, there'll be a day——"

"But you wouldn't threaten your host!" the other said with mock surprise. "And surely you wouldn't threaten me, of all men. Must I point out how useless it has always been for you to match yourself, merely a skilful gunman, against me, against a brain?"

"Usually," the cold whisper came back, "the brain has failed in the traps it has laid for the gunman."

"Only because of the mistakes of its agents. Unfortunately for you, the brain is dealing with you directly this time, my friend. It's quite a different matter. But this small talk—although you honor——"

"Of course you intend to kill me," said the Hawk. "But when?"

Dr. Ku gestured deprecatingly. "You insist on introducing these unpleasant topics! But to relieve your mind, I've not yet decided how I can entertain you most suitably. I have come primarily to ask you one trifling thing."

"And that is?"

"The whereabouts of Master Scientist Eliot Leithgow."

HAWK CARSE smiled. "Your conceit lends you an extraordinary optimism, Dr. Ku."

"Not unfounded, I am sure. I desire very much to meet our old friend Leithgow again: his is the only other brain in this universe at all comparable to mine. And did I tell you that I always get what I desire? Well, will you give me this information? Of course, there are ways."

For a moment he waited.

The Hawk only looked at him.

"Always in character," the Eurasian said regretfully. "Very well." He turned his head and took in Friday and Sako, standing near-by. "You are Sako?" he asked the latter. "It is most unfortunate that you had to deceive me a little while ago. We shall have to see what to do about it. Later. For the present, move farther back, out of the way. So. You, black one, next to my friend Carse: we must be moving along. So."

Ku Sui surveyed then with inscrutable eyes. Gracefully, he drew close.

Carse missed not a move. He watched the Eurasian draw, from one of the long sleeves of his blouse, a square of lustrous black silk.

"This bears my personal insignia, you

see," he murmured. "You will remember it." And he languidly waved it just under their eyes.

Friday stared at it; Carse too, wonderingly. He saw embroidered in yellow on the black a familiar insignia composed of an asteroid in the circle of ten planets. And then alarm lit his brain and he grimaced. There was a strange odor in his nostrils and it came from the square of silk.

"Characteristic, Dr. Ku," he said. "Quite characteristic."

The Eurasian smiled. An expression of stupid amazement came over Friday's face. The design of asteroid and planets wavered into a blur as the Hawk fought unconsciousness; a short, harsh sound came from his lips; he lurched uncertainly. The negro crumpled up and stretched out on the deck. Carse's desire to sleep grew overpowering. Once more, as from a distance, he glimpsed Ku Sui's smile. He tried to back to the wall; made it; then a heavy thump suggested to his dimming mind that he had collapsed to the deck. He was asleep at once.

Chapter 4 Soil

HAWK CARSE awoke with a slight feeling of nausea, and the smell of the drug faint in his nostrils. He found he was lying on the floor of a large, square cell whose walls and ceiling were of some burnished brown metal and which was bare of any kind of furnishing. In one wall was a tightly closed door, also of metal and studded by the knob of a lock. Barred slits, high in opposite walls, gave ventilation; a single tube set in the ceiling provided illumination.

He was not bound. He sat up and regarded the outflung figure of Friday, lying to one side. "Something in his look seemed to reach the giant negro, for, as he watched, the man's eyelids flickered, and a sigh escaped his full lips. He stared up at Carse, recognition, followed by gladness, flooding his eyes. The Hawk smiled also. There were close bonds between these two.

"Lord, I'm sure thankful to be with you, suh!" said the negro with relief. His eyes rolled as he took in the cabinlike cell. "Hmff—nice homey little place," he remarked. "Where do you reckon we are, suh?"

"I think we're at last at that place we have searched so long for—Ku Sui's headquarters, his own spaceship."

It will be remembered by those who have read their history that the Eurasian's actual base of operations was for a long time the greatest of the mysteries that enveloped him. Half a dozen times had the Hawk and his comrade in arms, Eliot Leithgow, hunted for it with all their separate skill of adventurer and scientist, and, although they had twice found the man himself, always they had failed to find his actual retreat.

For those who are unacquainted with the histories of that raw period a hundred years ago, it will be impossible to understand the spell of fear which accompanied mention of Dr. Ku throughout the universe—a fear engendered chiefly by the man's unpredictable comings and goings, thanks to his secret hiding place. Those who were as close to him as henchmen could be—which was not very close—only added to the general mystery of the whereabouts of the base by their sincerely offered but utterly contradictory notions and data. One thing all agreed on: the outlaw's lair was a place most frightening.

Therefore it can be understood why, on hearing the Hawk's opinion, Friday's face fell somewhat.

"Guess that means we're finished,

suh," he opined moodily.

CARSE had walked to the lone door and found, as he of course expected, that it was tightly locked. He responded crisply:

"It's not like you to talk that way, Eclipse. We're far from that. We have succeeded in the first step—if, as I suspect, this cell is part of Dr. Ku's real headquarters—and surely before he decides to eliminate us we will be able to learn something of the nature of his space-ship; perhaps how it can be attacked and conquered."

Conversation always cheered the naturally social Friday; he seldom had the opportunity for it with his usually curt master. He objected:

"But what good'll that do us, suh, if we take what we've learned to where it won't help anybody, least of all us? An' what chance we got against Ku Sui now, when we're prisoners? Why, he's a magician; it ain't natural, what he does. Lands in our ship plop right out of empty space! Puts us out with a wave of his handkerchief!" With final misery in his voice he added: "We're sunk, suh. This time we surely are."

Carse smiled at his emotional friend. "All you need is a good fight, Eclipse. It's thinking that disintegrates your morale; you should never try to think. Why—there was an anesthetic on that handkerchief! Simple enough; I might have expected it. As for his getting into our ship, he entered from behind, through the after port-lock, while we were looking for his ship on the visi-screen. I don't understand yet why we could not see his craft. It's too much to suppose he could make it invisible. Paint, perhaps, or camouflage. He might have a way of preventing, from a distance, the registering of his ship on our screen. Oh, he's dangerous, clever, deep—but somewhere, there'll be a loophole. Somewhere. There always is." His tone changed, and he snapped: "Now be quiet. I want to think."

HIS face stiffened into a cold, calm mask, but behind his gray eyes lay anything but calmness. Ku Sui's easy assumption that the information as to Eliot Leithgow's whereabouts would be forthcoming from his lips, puzzled him, brought real anxiety. Torture would probably not be able to force his tongue to betray his friend, but there were perhaps other means. Of these he had a vague and ominous apprehension. Dr. Ku was preeminently a specialist in the human brain; he had implied his will to have that information. Suppose he should use something it was impossible to fight against?

And he alone, Hawk Carse, brought the responsibility. He had asked Leithgow where he would be, and he remembered well the place agreed upon. He dared not lose the battle of wits he knew was coming!

His eyes shot to the door. It was opening. In a moment Ku Sui stood revealed there, and behind him, in the corridor, were three other figures, their yellow coolie faces strangely dumb and lifeless above the tasteful gray smocks which extended a little below their belted waists. Each bore embroidered on his chest the planetary insignia of Ku Sui in yellow, and each was armed with two ray-guns.

"I must ask forgiveness, my friend, for these retainers who accompany me," the Eurasian began suavely. "Please don't let them disturb you, however; they are more robots than men, obeying only my words. A little adjustment of the brain, you understand. I have brought them only for your protection; for you would find it would result most unpleasantly to make a break for freedom."

"Of course, you're not the one who wants protection!" sneered Friday, with devastating sarcasm. "Or else you'd 'a'

brought a whole army!"

But the negro paled a little when the Oriental's green tiger eyes caught him full. It was with a physical shock—such was the power of the man—that he received the soft-spoken reply:

"Yours is a most subtle and entertaining wit, black one; I am overcome with the honor and pleasure of having you for my guest. But perhaps—may I suggest?—that you save your humor for a more suitable occasion. I would like to make the last few hours of your visit as pleasant as possible."

HE turned to Hawk Carse. "I have thought that an inspection of this, my home in space, would intrigue you more than anything else my poor hospitality affords. May I do you the honor, my friend?"

"You are too good to me," the Hawk replied frostily. "I will duplicate your kindness some day."

The Eurasian bowed. "After you," he said, and waited until Friday and the Hawk passed first through the door. Close after them came the three automatons of yellow men.

The passageway was square, plain and bare, and spaced at intervals by other closed doors. "Storerooms in this wing," the Eurasian explained as they progressed. He stopped in front of one of the doors and pressed a button beside it. It slid noiselessly open, revealing, not another room, but a short metal spider ladder. Up this they climbed, one of the guards going first in the half darkness; then a trap-door above opened to douse them with warm ruddy light. They stepped out.

And the scene that met them took them completely off guard. Friday gasped, and Carse so far lost his habitual poise as to stare in wonder.

Soil! And a great glassy dome!

NOT a space-ship, this realm of Ku Sui. Soil—soil with a whole settlement built upon it! Hard, grayish soil, and on it several buildings of the familiar burnished metal. And overhead, cupping the entire outlay, arched a great hemisphere of what resembled glass, ribbed with silvery supporting beams and struts: an enormous bowl, turned down, and on its other side the glorious vista of space.

Straight above hung the red-belted disk of Jupiter, with the pale globes of Satellites II and III wheeling close, and all of them were of the same relative size they had appeared when last seen from the Scorpion!

Dr. Ku smiled unctuously at the puzzlement that showed on the faces of his captives.

"Have you noticed," he asked, "that you are still in the neighborhood of the spot in space where we had our rendezvous? But this isn't another of Jupiter's satellites. Ah, no. This is my own world—my own personally controlled little world!"

"Snakes of the Santo!" Friday gasped, the whites of his eyes showing all around. "Then we must be on an asteroid!"

They were. From the far side of the dome ahead of them the asteroid stretched back hard and sharp in Jupiter's ruddy light against the backdrop of black space. It was a craggy, uneven body, seemingly about twenty miles in length, pinched in the middle and thus shaped roughly like a peanut shell. One end had been leveled off to accommodate the dome with its cradled buildings; outside the dome all was untouched. The landscape was a gargantuan jumble of coarse, hard, sharp rocks which had crystallized into a maze of hollows, crevices, long crazy splits and jagged outthrusting lumps of boulders. Without an atmosphere, with but the feeblest of gravi-

ties and utterly without any form of life—save for that within the dome built upon it—it was simply a typical small asteroid, of which race only the largest are globe-shaped.

"Once," the Eurasian went on softly as they took all this in, "this world of mine circled with its thousands of fellows between Mars and Jupiter. I picked it from the rest because of certain mineral qualities, and had this air-containing dome constructed on it, and these buildings inside the dome. Then, with batteries of gravity-plates inserted precisely in the asteroid's center of gravity, I nullified the gravital pull of Mars and Jupiter, wrenched it from its age-old orbit and swung it free into space. An achievement that would command the respect even of Eliot Leithgow, I think. So now you see, Carse; now you know. Thisis my secret base, this my hidden laboratory. I take it always with me, and I travel where I will."

The Hawk nodded coldly his acceptance of the astounding fact; he was too busy to make comment. He was observing the buildings, the nature of them, the exits from the dome, how they could best be reached.

THEY stood on the roof of the largest and central building, a low metal structure with four wings, crossing at right angles to make the figure of a great plus mark. The hub was probably Dr. Ku's chief laboratory, Carse conjectured. On each side stood other buildings, low, long, like barracks, with figures of coolies moving in and out. Workshops, living quarters, power-rooms, he supposed: power-rooms certainly, for a soft hum filled the air.

There were two great port-locks at ground level in the dome, one on each side, each sizable enough to admit the largest space-ship and each flanked by a smaller, man-sized lock. To reach them.

"And over there," Dr. Ku's voice broke in, "you see your borrowed ship, the Scorpion. But please don't let it tempt you to cut short your visit with me, my friend. It would avail you nothing even if you reached her, for it requires a secret combination to open the port-locks, and my servants' brains have been so altered that they are physically incapable of divulging it to you. And of course I have offensive rays and other devices hidden about—just in case. All rather hopeless, isn't it? But surely interesting.

"Let us go: I have more. Below, in my main laboratory in the center of this building, there's something far more interesting, and it concerns you, Carse, and me, and also Master Scientist Eliot Leithgow." He let the words sink in. "Will you follow me?"

And so they went below again, down the spider ladder into the corridor. There was nothing else to do: the guards, ever watchful, pressed close behind. But a tattoo of alarm was beating in Hawk Carse's brain. Eliot Leithgow again—the hint of something ominous to be aimed at him, Carse, for the extraction of information he alone possessed: the whereabouts of his elderly friend the Master Scientist.

Chapter 5 The Color-Storm

THE corridor was stopped by a heavy metal door. As the small party approached, it swung inward in two halves, and a figure clad in a white surgeon's smock emerged. He was a white man, tall, with highly intelligent face but eyes strangely dull and lifeless, like those of the coolie-guards. His gaze rested on Ku Sui, and the Eurasian asked him:

"Is it ready?"

"Yes, lord,"—tonelessly.

"Through here, then, my friends." The door opened and closed behind them as they stepped inside. "This is my main laboratory. And there, friend Carse, is the object which is to concern us."

With one glance the adventurer took in the laboratory. It was a great room, a perfect circle in shape, with doors opening into the four wings of the building. The walls were lined with strange, complicated machines, whose purpose he could not even guess at; in one place there was a table strewn with tangled shapes of wire, rows of odd-bulging tubes and other apparatus; and conspicuous by one door was an ordinary operating table, with light dome overhead. A tall wide screen placed a few feet out from the wall hid something bulky from view. Carse noted all these things; then his gaze went back to the object in the middle of the floor which Ku Sui had indicated.

It was, primarily, a chair, within a suspended framework of steely bars, themselves the foundation for a network of fine-drawn colored wires. Shimmering, like the gossamer threads of a spider's spinning, they wove upward, around and over the chair, so that he who sat there would be completely surrounded by the gleaming mesh.

Within the whole hung a plain square boxlike device, attached to the chair and so placed that it would be directly in front of the eyes of anyone sitting there. Ropes were reeved through pulleys in the ceiling, for raising the wire-ball device to permit entrance. And standing ready around it, were four men in surgeons' smocks—white men with intelligent faces and dull, lifeless eyes.

THE Hawk knew the answer to the question he curtly asked. "Its purpose, Dr. Ku?"

"That," came the suave reply, "it will be your pleasure to discover for yourself. I can promise you some novel sensations. Nothing harmful, though, however much they may tire you. Now!" He gave a sign; one of his assistants touched a switch. The wire ball rose, leaving the central seat free for entrance. "All is ready. May I ask you to enter?"

Hawk Carse faced his old foe. There was stillness in the laboratory then as his bleak gray eyes met and held for long seconds Ku Sui's enigmatic green-black ones.

"If I don't?"

For answer the Eurasian gestured apologetically to his guards.

"I see," Carse whispered. There was nothing to be done. Three coolies, each with ray-guns at the ready; four white assistants. No hope. No chance for anything. He looked at the negro. "Don't move, Friday," he warned him. "They'll only shoot; it can do no good. Eight to two are big odds when the two are unarmed."

He turned and faced the Eurasian, holding him with his eyes. "Ku Sui," he said, clipping the words, "you have said that this would not permanently harm me, and, although I know you for the most deadly, vicious egomaniac in the solar system, I am believing you. I do not know you for a liar. I will enter."

The faint smile on the Oriental's face did not alter one bit at this. Carse stepped to the metal seat and sat down.

THE web of shimmering wires descended, cupping him completely. Through them he saw Ku Sui go to a switchboard adjoining and study the indicators, finally placing one hand on a black-knobbed switch and with the other drawing from some recess a little cone, trailing a wire, like a microphone. A breathless silence hung over the laboratory. The white-

clad figures stood like statues, dumb, unfeeling, emotionless. The watching negro trembled, his mouth half open, his brow already bedewed with perspiration. But the only sign of strain or tension that showed in the slender flaxen-haired man sitting in the wire ball in the center of the laboratory, came when he licked his dry lips.

Then Dr. Ku Sui pulled the switch down, and there surged out a low-throated murmur of power. And immediately the ball of wire came to life. The fine, crisscrossing wires disappeared, and in their stead was color, every color in the spectrum. Like waves rhythmically rising and falling, the tinted brilliances dissolved back and forth through each other; and the reflected light, caroming off the surfaces of the instruments and tables and walls, so filled the laboratory that the group of men surrounding the fire-ball were like resplendent figures out of another universe.

Ku Sui pressed a button, and the side of the boxlike device nearest Hawk Carse's eyes assumed transparency and started to glow. Beautiful colors began to float over its face, colors never still but constantly weaving and clouding into an infinity of combinations and designs. Eyes staring wide, as if unable to close them to the brilliant kaleidoscopic procession, the adventurer looked on.

FRIDAY knew that his master at that moment was impotent to move, even to shut his eyes, and, with a wild notion that he was being electrocuted, he made a rash rush to destroy the device and free him. He learned discretion when two ray-streaks pronged before him and forced him back; and thereafter he was given the undivided attention of two guards.

From the outside, through the ball of color, Carse was a ghostlike figure. Rigid and quivering, he sat in the chair and watched the color-maelstrom. His face was contorted; his cheek muscles stood out weltlike in his sweat-glistening skin; his eyes, which he could not close, throbbed with agony. But yet he was conscious; yet he still could will.

He defended his secret as best he could. Obviously this machine was being used to force from his mind the knowledge of Eliot Leithgow's whereabouts, and therefore he attempted to seal his mind. He fastened it on something definite—on Iapetus, satellite of Saturn, and his ranch there—and barred every other thought from his head. Mechanically he repeated to himself: "Iapetus, Iapetus—my ranch on Iapetus—Iapetus, Iapetus." Hundreds of times. Hours. Days.

The blinding waves of color rioted about him, submerged him, fatigued him. He had a strong impulse to sleep, but he resisted it.

Days seemed to pass. Years. Eons. All this. Continued without change. To the end of the world.

Dimly he knew that the color-storm was working on him; sensed danger when a great drowsiness stole over him; but he fought it off, his brain beating out hundreds of times more: "Iapetus, Iapetus—I have a ranch there—Iapetus, Iapetus."

Then came excruciating pain!

AN electric shock suddenly speared him. His nerves seemed to curl up, and for a second his mind was thoroughly disorganized before it again took up the drone about Iapetus. Recovery dullness a kind of peace—and again the shock leaped through him. It was followed by a question from afar off:

"Where is Eliot Leithgow?"

Somehow the question meant a great deal and should not be answered.

Again the stab of agony. Again the voice:

"Where is Eliot Leithgow?"

Again the shock, and again the voice. Alternating, over and over. He could brace himself against the shock, but the voice could in no way be avoided. It was everywhere about him, over, around, under him; he began to see it. Desperately he forced his brain on the path it must not leave. He had forgotten years ago why, but knew there must be some good reason.

"Iapetus, Iapetus—I have a ranch there—Iapetus, Iapetus—Where is Eliot Leithgow?—Iapetus, Iapetus—I have a ranch there—Where is Eliot Leithgow—I have a ranch there—a ranch there—Iapetus, a ranch—Where is Eliot Leithgow?—Where is Eliot Leithgow?—Where is Eliot Leithgow?"

After two hours and ten minutes the Hawk crumpled.

He was quite delirious at the time. The combined effect of the pain, the physical and nervous exhaustion of the shocks and light, the endlessly repeated question, his own close concentration on his Iapetus ranch—these were too much for any human body to stand against. He lost his grip on his mind, lost the fine control that had never been lost before, the control about which he was so vain. And the lump of flesh that was Hawk Carse gave the information that was tearing wildly at its prison.

A stammering voice came from the heart of the color-sphere:

"Port o' Porno, Satellite III—Port o' Porno, Satellite III—Port o' Porno Sat——"

Dr. Ku Sui interrupted him; leaned forward.

"The house is number——?"

"574—574—574——"

"Ah!" breathed the Eurasian. "Port o' Porno! So near!"

Ku Sui returned the switch and pressed one of the buttons. The pool of colors faded; the laboratory returned to comparative dimness. The machine in its center seemed but a great web of wire.

Slumped in the seat within it was a slender figure, his flaxen head bowed over on his chest, his eyes closed, and sweat still trickling down his unconscious brow.

And lying on the floor was another unconscious figure.

Friday had fainted.

Chapter 6 Port o' Porno

THE pirate port of Porno is of course dead now, replaced by the clean lawfulness of Port Midway, but a hundred years ago, in the days before the patrol-ships came, she roared her bawdy song through the farthest reaches of the solar system. For crack merchant ships and dingy space trading tramps alike, she was haven; drink and drugs, women and diversions unspeakable lured to her space ports the cream and scum, adventures and riffraff of half a dozen worlds. Sailors and pirates paid off at her and stayed as long as their wages lasted in the Street of the Sailors; not a few remained permanently, their bodies flung to the beasts of the savage jungle that rimmed the port. There only the cunning and strong could live. Ray-guns were the surest law. Modern scientific progress stood side by side with murderous lawlessness as old as man himself.

The hell town had grown with the strides of a giant, rising rapidly from a muddy street of tio shacks to a small cosmetropolis. She was essentially a place of contrasts. Two of the big Earth companies had modern space-ship hangars there, well-lighted, well-equipped, but under

their very noses was a festering welter of dark, rutted byways extending all the way to the comparative orderliness of the short, narrow Street of the Merchants, itself flanked by the drunken bedlam of the Street of the Sailors. It can be understood why these men who flew, who needed a whole solar system for elbow room, disdained setting to order the measly few acres of dirt they stopped at, but it is a mystery why, when used to living through vast leagues of space, they endured such narrow streets and cluttered houses. Probably, tired from their long cramped cruises, impatient for their fling, they just didn't care a whoop.

The whole jumble that was this famous space port rested in the heart of Satellite III's primeval jungle.

TALL electric-wired fences girdled Port o' Porno to keep the jungle back. It was equivalent to a death sentence to pass unarmed outside them; the monstrous shapes that lived and fought in the jungle's swampy gloom saw to that. Hideous nightmare shapes they were, some reptilian and comparable only to the giants that roamed Earth in her prehistoric ages. Eating, fighting, breeding in the humid gloominess of the vegetation shrouded swamps, their bellows and roars sometimes at night thundered right through Porno, a reminder of Nature yet untamed. Occasionally, in the berserk ecstasy of the mating season, they hurled their house-high bodies at the guarding fences; and then there was panic in the town, and many lives ripped out before a barrage of rays drove the monsters back.

They were not the only inhabitants native to Satellite III. Deep underground, seldom seen by men, lived a race of man-mole creatures, half human in intelligence, blind from their unlit habitat, but larger than a man and stronger; fiercer, too, when cornered. Their numbers no one knew, but their bored tunnels, it had been found, constituted a lower layer of life over the whole satellite.

Probably more vicious than these native "Three's" of Porno were the visiting bipeds, man himself, who thronged thekantrans—which may be defined as dives for the purveying of all entertainments. In them were a score of snares for the buccaneer with money in his pocket and dope in his blood. The open doors on the Street of the Sailors were all loud-speakers of drunken oaths and laughter, pierced now and then by a scream or cry as someone in the sweating press of bodies inside knew rage or fear.

ONE interplanetarily notorious kantran made a feature of swinging its attractions aloft in gilded cages, where all of them, young and old, pale and painted, giant and dwarf, ogled the arrested passers-by and invited sampling of their wares.

Of all kinds and conditions of men were these passers-by. Earthling sailors, white, negro, Chinese and Eurasian, most of them in the drab blue of space-ship crews, but each with a ray-gun strapped to his waist; short, thin-faced Venusians, shifty-eyed, cunning, with the planet's universal weapon, the skewer-blade, sheathed at their sides; tall, sweaty Martians, powerful brutes, wearing the air-rarifying mask that was necessary for them in Satellite III's Earthlike atmosphere. Business men and sight-seers, except the most bold, were apt to stay in their houses after their first visit to the Street of the Sailors. Each face on the street or in the kantrans that lined it bore the mark of drink, or the contemptuous, insolent expression bred by Porno's favorite drug, isuan.

Around Porno was the constant threat

of savage life; below it were half-human savagery and mystery; above, in the very shadow of their mighty engines of space, were the most vicious animals of all—degraded men.

This was the Port o' Porno of a hundred years ago.

This was the Port o' Porno where Master Scientist Eliot Leithgow for very good reasons had told Hawk Carse he would meet him. 574. The house of his friend.

NIGHT descended suddenly on the outlaw space-port that day the elderly exile waited in vain for his comrade in arms Hawk Carse to show up.

There were six hours when the blasting heat received by Satellite III from nearlying Jupiter would be gone, and in its place a warm, cloying tropical darkness, heavy with the odors of town and exotic products and the damp, lush vegetation of the impinging jungle. The night would be given over to carousing; for these six hours the Street of the Sailors came to life. It was a time to keep strictly in hiding.

In the middle of that night, when the pleasures of Porno were in full stride, there emerged suddenly, from one of the dark, crooked byways that angled off the Street of the Sailors, a squad of five men whose disciplined pace and regular formation were in marked contrast to the confusion around them. They were slant-eyed men, with smooth saffron faces, and strongly built, and they were armed, each one, with both a ray-gun and a two-foot black, pointed tube. But it was not their numbers, formation or weapons that caused the carousing crowd to fall silent and hastily get out of their path. It was, rather, the insignia embroidered on the breasts of the gray smocks they wore. The insignia represented an asteroid in a circle of the ten planets, and the Street of Sailors knew that sign and dreaded it.

The squad pressed along rapidly. A still-comely woman, new to Porno, plucked smirking at the leader's sleeve; but his pace did not slacken, and she fell back, puzzled and afraid because of her feeling of something lifeless, dumb, machinelike in the man. Ahead, an isuan-maddened Earthling fell foul of a Venusian; a circle cleared in the mob, a ray-gun spat and missed, and the Venusian closed, the gleam of a skewer-blade playing around him. This was combat; this was interesting; but none of the squad's five men gave the fight a glance, or even turned his head when, as they passed, the butchered Earthling coughed out his life.

SO they passed, and soon they were gone down another black-throated byway.

They padded noiselessly along in the darkness to turn again presently, pausing finally before a low, steel-walled house, typical of the strongholds of prudent merchants of the port. No lights were visible within it; all seemed asleep.

Silence filled the narrow street, and unrelieved darkness. Occasionally a desultory breeze brought sounds of a burst of revelry from the Street of the Sailors; once the ports of an outbound space-ship flashed overhead for an instant. But there was mainly silence and darkness, and in it the five men, parleying close together in toneless whispers.

After a little they separated. On cat's feet four of them stole around the sides of the house. The fifth, drawing the black, pointed tube from his slash, crept up to the front entrance-port and held the tip to it. Blue light sparkled fantastically, revealing his impassive face, outlining his crouching body. Then, quite suddenly, the port appeared to melt inward, and he disappeared into the blackness of the interior.

Presently there came a stir of movement, a whisper, a rustle from inside. A challenge, shouts volleying forth, a scream, another, and the peculiar rattling sound that comes from a dying man's throat. Then again silence.

Five shadows melted from the front entrance-port. They were carrying something black and still and heavy between them.

The errand was done.

Chapter 7 The Coming of Leithgow

HAWK Carse awoke to the touch of a hand on his brow. He came very slowly to full consciousness. His pain was great.

His whole body was sore: every joint, every muscle in it ached; his brain was feverish, pumping turmoil. When he at length opened his eyes he found Friday's face bent close down, tender anxiety written large over it.

"You all right, suh? How do you feel now?"

A harsh sound came from the Hawk's throat. He pressed a hand to his throbbing temple and tried to collect his senses. Sitting up helped; he glanced around. They were back in the same cell, and they were alone. Then, shortly, he asked:

"Did I tell him?"

"About Mr. M. S., suh?"

"Of course, I can't quite remember—a bit blurred——"

"I guess you did, suh," Friday answered mournfully. "I didn't hear you, but Ku Sui said you told him where Master Leithgow is. But dog-gone—you couldn't help it!"

Carse forgot his pain as his brain straightened these words out into their overwhelming consequence, and something of its old familiar mold, hard and graven, emotionless, came back to his face. His eyes were bleak as he murmured:

"I couldn't help it—no. I really don't think it was possible. But I could have refused to get into the machine. I thought I could resist it. I took that risk, and failed." He stopped short. His body twitched with uncontrolled emotion, and in decency the negro turned his back on his master's anguish. A broken whisper reached him: "I have betrayed Leithgow."

FOR a short while neither man moved, or made any sound. Friday was a little afraid; he guessed what must be going on in Carse's mind, and had no idea what to expect. But the Hawk's next move was quite disciplined; he was himself again.

He got up and stretched his body, to limber its muscles. "How long have we been here?" he asked.

"Don't know suh; I was unconscious when they brought me here myself. But I guess not less'n six or eight hours."

"Unconscious?" asked the Hawk, surprised. "You fought, and they knocked you out?"

The big negro looked sheepish and scratched his woolly head.

"Well, no suh," he explained. "I was aimin' to butt in some, but they wouldn't let me."

"Then how did you get unconscious?"

Friday fidgeted. He was acutely embarrassed. "Don't know, suh, Dog-gone, I just can't figure it, unless I fainted."

"Oh." The Hawk smiled. "Fainted. Well so did I, I guess. I suppose," he went on seriously, "you couldn't tell whether the asteroid moved or not. I mean toward Satellite III."

Friday scratched his head again.

"I guess I can't, suh," he replied. "I haven't felt any movement."

"The door is locked?"

"Oh, yes, suh. Tight."

"Very well. Now please be silent. I want to think."

He went over and leaned against the far wall of the cell. His right hand rose to the bangs of flaxen hair and with a slow regular movement began to smooth them. Lost in thought he stood there, thinking through the situation in which he found himself.

He had expected, of course, to subject himself to great risk in keeping the rendezvous with Dr. Ku Sui, but he had never thought he would be endangering Eliot Leithgow also. It was torture to know he had put the gentle old scientist into the Eurasian's web.

That was it: if he could not somehow shear through that web, he must destroy Leithgow himself, and follow on after. The scientist would prefer it so. For whatever Dr. Ku's exact reason for wanting the Master Scientist was, it was an ugly one: that it was worse than quick death, he knew full well.

Shear through the web. How? Where was the weak strand in Ku Sui's cunningly laid plot? The Hawk visualized all he could of the asteroid's mechanical details, and surveyed them painstakingly. Two great port-locks flanked by little ones; secret opening combinations—not much hope in that avenue. Judd's ship, resting above: could he reach it, and raise it and douse the buildings with its rays? No; Dr. Ku had spoken of defense rays—they would certainly be far more powerful than theScorpion's. Then, somewhere there were the mighty gravity-plates batteries which motivated the asteroid and held it controlled in space. The dynamos. Two men, working swiftly, might wreak an unholy amount of damage in little time; in the resulting confusion anything might happen. If!

INTO the depths of his concentration came the odor of tsin-tsin flowers, followed by the familiar, silkie voice of his arch-enemy.

"I see you are deep in thought, my friend. I trust it indicates your complete recovery."

Dr. Ku Sui stood smiling in the doorway, his same bodyguard of three armed men behind him. His sardonic words brought no reply. He went on:

"I hope so. I have arranged, thanks to your kindness, a meeting with an old, dear friend of yours. An illustrious friend: he already honors my establishment with his presence. I have come to ask you to join us."

The Hawk's gray eyes turned frigid: a lesser man would have blanched at the threat implied in his answer.

"God help you, Ku Sui."

The Eurasian turned it aside. "Always," he said, "God helps those who help themselves. But come with me, if you'll be so kind. We are expected in the laboratory."

This exchange passed quickly. Friday was still grasping at its underlying meanings as they again filed down the short straight outside corridor. It brought a perverse satisfaction to see the coolie guards bearing their ray-guns unsheathed and ready. Ku Sui's general attitude did not fool him. He knew that the man's suave mockery and flowery courtesy were camouflage for a very real fear of the quick wits and brilliant, pointed action of his famous master, the Hawk.

Carse walked steadily enough, but every step he took beat in his mind like the accents of a dirge. For he had betrayed into the hands of the Eurasian his most loved and loyal friend. Betrayed him! Despicably egotistical he had been in submitting to the chair, in not making one last wild break for

freedom at that time. He had thought he could beat Ku Sui at his own game. Ku Sui, of all men!

UNSEEN hands opened from the other side the metal laboratory door, they passed through and the close-fitting halves closed behind them. Ku Sui went to the main switchboard and Carse glanced rapidly around. Leithgow was not there. The wire-ball device was gone, but otherwise the details of the room were unchanged, even to the four white-clad assistants whose fine heads had eyes so lifeless and faces so expressionless. Emphasized, now, somehow, was the tall screen that hid something on one side of the room, and an intuition told the Hawk that what lay behind the screen was in some way connected with their fate.

He waited stolidly for what he knew was coming.

"Now," Dr. Ku murmured. He smiled at his two prisoners and pressed one of the switchboard's array of buttons. A door opposite them swung open.

"Believe me, this is a pleasure," he said.

Flanked by two impressive slant-eyed guards, a frail figure in a rubber apron stood revealed.

Master Scientist Eliot Leithgow blinked as he looked about the laboratory. Helpless, pitifully alone he looked, with his small, slightly stooped body, his tragedy-aged, deeply-lined face. The blue veins showed under the transparent skin of his forehead; his light-blue eyes, set deep under snow-white eyebrows, darted from side to side, dazed by the light and perhaps still confused by the events which had snatched him so suddenly from his accustomed round and struck him with such numbing force. His years and frailty were obviously fitted rather to some seat of science in a university on Earth than the raw conditions of the frontiers of space.

Hawk Carse found words, but could not control his voice.

"This is the first time I've ever been sorry to see you, M. S.," he said simply.

Chapter 8 Dr. Ku Shows His Claws

THE scientist brushed back his thinning white hair with a trembling hand. He knew that voice. He walked over and put his hands on his friend's shoulders.

"Carse!" he exclaimed. "Thank God, you're alive!"

"And you," said the Hawk.

Ku Sui interrupted.

"I am most glad, honored Master Scientist," he said in the flowery Oriental fashion that he affected in his irony, "to welcome you here. For me it is a memorable occasion. Your presence graces my home, and, however unworthily, distinguishes me, rewarding as it does aspirations which I have long held. I am humbly confident that great achievements will result from your visit——"

Quickly Eliot Leithgow turned and looked squarely at him. There was no bending of spirit in the frail old man. "Yes," he said, "my visit. Your sickening verbal genuflections beautifully evade the details—the house of my friend raided at night; he, himself, unarmed, shot down in cold blood; his house gutted! You are admirably consistent, Dr. Ku. A brilliant stroke, typical of your best!"

Five faint lines appeared across the Eurasian's high, narrow brow. "What?" he exclaimed. "Is this true? My servitors must be reprimanded severely; and meanwhile I beg you not to hold their impetuousness against me."

CARSE could stand it no longer. This suave mockery and the pathetic figure of

his friend; the mention of raid and murder——

"It's all my fault," he blurted out. "I told him where you were. I thought——"

"Oh, no!" Dr. Ku broke in, pleasantly protesting. "Captain Carse is gallant, but the responsibility's not his. I have a little machine—a trifle, but most ingenious at extracting secrets which persons attempt to hold from me. The Captain couldn't help himself, you see——"

"It was not necessary to tell me that," said Leithgow.

"Of course," the Eurasian agreed and for the first time seriously; "but let me suggest that the end justifies the means. And that brings me to my point. Master Scientist, now you may know that I have for some time been working toward a mighty end. This end is now in sight, with you here, the final achievement can be attained. An achievement——" He paused, and the ecstasy of the inspired fanatic came to his eyes. Never before had the three men standing there so seen him. "I will explain."

His eyes changed, and imperiously he gave an order to his assistants. "A chair for Master Leithgow, and one for Carse. Place them there." Then, "Be seated," he invited them with a return of his usual seeming courtesy. "I'm sure you must be tired."

Slowly Eliot Leithgow lowered himself into the metal seat. Friday, ignored, shifted his weight from one foot to the other. The Hawk did not sit down until with old habit he had sized up the whole layout of laboratory, assistants and chances. The two chairs faced toward ward the high screen; to each side stood the five coolie-guards; mechanically alert as always; the four Caucasian assistants made a group of strange statues to the right.

Ku Sui took position, standing before the screen. Seldom did the cold, hard iron of the man show through the velvet of his manner as now.

"Yes," he said, "I will talk to you for a while; give you broad outline of my purpose. And when I have finished you will know why I have wanted you here so badly, Master Leithgow."

HE began, and, as never before, he hid nothing of his monstrous ambition, his extraordinary preparations. With mounting fear his captives listened to his well-modulated voice as it proceeded logically from point to point. He had fine feeling for the dramatic, knew well the value of climax and pause; but his use of them was here unconscious, for he spoke straight from his dark and feline heart.

For the first time in the Affair of the Brains, the tiger was showing his claws.

"For a long time," Ku Sui said, "we four gathered here have fought each other. All over space our conflict has ranged, from Earth to beyond Saturn. I suppose there never have been more bitter enemies; I know there has never been a greater issue. I said we four, but I should have said we two, Master Leithgow. Captain Carse has commanded a certain respect from me, the respect one must show for courage, fine physical coordination and a remarkable instinct and capacity for self-preservation—but, after all, he is primarily only like the black here, Friday, and a much less splendid animal. It is a brain that receives my respect! A brain! Genius! I do not fear Carse: he is only an adventurer; but your brain, Master Leithgow, I respect.

"For, naturally, brains will determine the future of these planets around us. The man with the most profound and extensive scientific knowledge united to the greatest audacity—remember, audacity!—can rule them every one!"

He paused and looked into the eyes of the Master Scientist. Pointedly he said:

"You, Master Leithgow, have the brains but not the audacity. I have the audacity and the brains—now that you are here."

COLD prickles of fear chased down Carse's and the scientist's spine at this obscure threat. Some of their reaction must have shown in their faces, for the Eurasian permitted himself a brief, triumphant smile and added:

"You shall know just what I mean in but a few minutes. Right now, in this very laboratory, the fate of the planets is being decided!"

Hawk Carse licked his dry lips.

"Big words!" he said.

"Easily proved, Captain Carse, as you'll see. What can restrain the man who can instantly command Earth's masterminds of scientific knowledge, the man who has both a considerable brain of his own to call on and the mightiest brains in existence, all coordinated for perfect, instant effectiveness. Why, with these brains working for him, he can become omnipotent; there can be but feeble resistance to his steps toward universal power! Only chance, unpredictable chance, always at work, always powerful, can defeat him—and my audacity allows me to disregard what I cannot anticipate."

"You talk riddles," answered Leithgow. "You do not explain your intended means. What you imply you can do with brains is utterly impossible."

"Impossible? Ever a foolish word, Master. You know that the brain has always been my special study. As much as ten years ago, I was universally recognized as the greatest expert in my specialty. But I tell you that my knowledge of the subject was as nothing then to what it is now. I have been very busy these last ten years. Look!"

With a graceful sweep of a hand he indicated the four coolie-guards and his four white-smocked assistants.

"These men of mine," he continued, "do they appear normal, would you say? Or, rather, mechanicalized; lacking in certain things and thereby gaining enormously in the values which can make them perfect servitors? I have removed from their minds certain superficial qualities of thought. The four men in white were, a few years ago, highly skilled surgeons, three of them brain specialists and noted for exceptional intellects and bold, pioneering thinking. I needed them and took them, diverting them from their natural state, in which they would have resisted me and refused my commands. Certain complicated adjustments on their brains—and now their brains are mine, all their separate skill at my command alone!"

LEITHGOW sat back suddenly, astonishment and horror on his face. His lips parted as if to speak, then closed tightly together again. At last he uttered one word.

"Murderer!"

Dr. Ku smiled. "In a sense, yes. But let me go on.

"The reshaping of these mentalities and of the mentalities of all my coolies, were achievements, and valuable ones; but I wanted more. I wanted much more. I wanted the great, important part of all Earth's scientific knowledge at my fingertips, under my control. I wanted the exceptional brains of Earth, the brains of rare genius, the brains that lived like lonely stars, infinitely removed from the common herd. And more than that, I wanted them always; I wanted them ageless. For I had to seal my power!"

The Eurasian's words were coming

more rapidly now, though the man's thoughts and tone were still under control; and Carse, sitting there silently, felt that the climax was being reached; that soon something unthinkable, something of dread, would be revealed. The voice went on:

"These brains I wanted were not many—only six in all. Most of them you knew, Master Leithgow, these men who constituted the cream of Earth's scientific ability. Professor Estapp, the good-looking young American; Dr. Swanson, the Swede; Master Scientist Cram—the great English genius Cram, already legendary, the only other of that rank beside yourself; Professor Geinst, the hunchbacked, mysterious German; and Dr. Norman—Dr. Sir Charles Esme Norman, to give him his English title. I wanted these men, and I got them! All except you, the sixth!"

AGAIN Dr. Ku Sui smiled in triumph. To Eliot Leithgow his smile was unspeakable.

"Yes," the elderly scientist cried out, "you got them, you murderer!"

"Oh, no, no, Master Leithgow, you are mistaken. I did not kill them. Why should I be stupid as to do that? To these men I wanted so badly? No, no. Because these five scientists disappeared from Earth suddenly, without trace, without hint of the manner of their going, the stupid Earthlings believe they were killed! Stupid Earthlings! Abducted, of course; but why assume they were killed? And why, of all people, decide that Master Scientist Eliot Leithgow had something to do with their disappearance? I confess to having planted that evidence pointing to you, but if they had the sense of a turnip they would know that you were incapable of squashing a flea, let alone destroying five eminent brothers in science! You, jealous, guilty of five crimes passionel! Pour le science! Credulous Earthlings! Incredible Earthlings! And here are you, a hunted man with a price on your head!

"So for ten years you have thought I murdered those five men? No, no. They were very much alive for eight years and very troublesome prisoners. It took me eight years to solve the problem I had set myself.

"You will meet them in a minute—the better part of them. You'll see for yourself that they are very usefully alive. For I succeeded completely with them. I have sealed my power!"

His silk pajamalike clothing rustled loud in the strained silence as he turned to the screen behind him. For some obscure reason the perfume about him, flowers of tsin-tsin, seemed to grow in their nostrils.

"Observe!" he said, and lifted it aside. An assistant threw a switch on a nearby panel. The unnatural quiet in the laboratory was resumed.

"The ultimate concentration of scientific knowledge and genius! The gateway to all power!"

Chapter 9 The Brain Speaks

A CASE lay revealed.

At first, while it was unlit, it seemed nothing more than that: a case like those glass-sided and glass-topped ones found in museums, a case perhaps three feet high, three feet deep and five feet in width. Under this glass upper part of the case was an enclosed section a little more than a foot in depth. The whole structure was supported at each corner by short strong metal legs. And that was all.

But, second by second, as the captives took in these details, a change came over the interior. No doubt it was the result of the increasing action of some electrical current loosed by the throwing of the switch; the whole insides of the glass case little by

little lightened, until it became apparent it was full of a strange liquid that seemed of itself to have the property of glowing with soft light. As this light increased, a row of five shadowy bulks the size of footballs began to take form between what looked, from where the men sat, like a forest of fibers of silk.

In a few more seconds a miracle of complicated wiring came into visibility. The silk fibers were seen to be wires, threads of silver gossamer that interconnected the five emerging bulks in a maze of ordered complexity. Thousands interlaced the interior; hundreds were gathered in each of five close bunches that sprouted from the floor of the case and then spread, fanwise, to various groupings of delicate liquid-immersed instruments.

In several seconds more Eliot Leithgow and Hawk Carse were staring with horror at what the now brilliantly glowing liquid revealed the five shapes to be. As one man they rose, went to the cabinet and gazed with terrible fascination.

"Brains!" exclaimed Leithgow. "Human brains! But not alive—surely not alive!"

"But yes," contradicted the triumphant Eurasian. "Alive."

FIVE human brains lay all immersed in the glowing case, each resting in a shallow metal pan. There were pulsings in narrow gray tubes which led into their undersides—theatrical evidence that the brains held imprisoned there were, as the Eurasian had said, alive—most strangely, unnaturally and horribly alive. Stark and cruelly naked they lay there, pulsing with life that should not have been.

"Yes, alive!" repeated Ku Sui. "And never to die while their needs are attended!"

One of his long artistic fingers tapped the glass before the central brain, which was set somewhat lower than the others. "This," he said, "is the master brain. It controls and coordinates the thoughts of the others, avoiding the useless, pursuing the relevant and retaining the valuable. It is by far the most important of the five, and is, of course the superior intellect. It is the keystone of my gateway to all power."

Eliot Leithgow's face was deathly white, but, as one in the grip of some devilish hypnotic fascination, he could not tear his eyes away from the revolting, amazing achievement of his brilliant enemy. The Eurasian with the cruelty of a cat picked that awful moment to add:

"This master brain is all that was best of Master Scientist Cram."

The frail old man took this statement like a blow.

"Oh, dear heaven—not Raymond Cram! Not Cram, the physicist, brought to this! Why, I knew him when——"

Ku Sui smiled and interrupted. "But you speak of him as if he were dead! He's not. He's very much alive, as you shall see. Possibly even happy—who knows? There is no good—— Keep back, Carse!"

HIS tiger's eyes had not missed the adventurer's slight crouch in preparation for a shove which might have toppled the case and ended the abominable servitude of its gruesome tenants. The Hawk was caught before he had well started; and had he not stopped his gathering muscles he would have been dead from the coolie-guards' rays by the time he touched the near side of the case.

He took his failure without comment; only stepped back, folded his arms and burned his enemy with the frigid glare of his eyes. The Eurasian continued as if nothing had happened, addressing himself

chiefly to Leithgow.

"The others, too, you once knew; you are even charged with their murder. Let me introduce you once more to your old colleagues and friends. There, at the right, is the brain you once compared notes with in the person of Professor Estapp. Next to him is Dr. Swanson. To the left of Master Scientist Cram, is Professor Geinst, and this last is Dr. Sir Charles Esme Norman. Now think what this group represents!

"Estapp, Chemistry and Bio-Chemistry; Swanson, Psychology; Geinst, Astronomy; Norman, Mathematics. And Cram, the master brain, of course, Physics and Electricity, although his encyclopedic knowledge encompassed every major subject, well fitting his brain for the position it holds. All this, gathered here in one! The five outstanding intellects of Earth, here gathered in one priceless instrument! Here are my advisors; here my trusty, never-tiring assistants. I can have their help toward the solution of any problem; obtain from their individual and combined intelligences even those rare intuitions which I have found almost always precede brilliant discoveries.

"For they not only retain all they ever knew of science, but they can develop, even as brains in bodies can develop. Their knowledge does not become outmoded, if they are kept informed of the latest currents of scientific thought. From old knowledge and new they build their structures of logic once my command sets them on. Wills of their own they have none.

"I have not succeeded in all my secondary alterations, however. For one thing, I have been unable to deprive them altogether of the memory of what they formerly were; but it is a subdued memory, to them doubtless like a dream, familiar yet puzzling. Because of this I imagine they hate me—heartily!—yet they lack the will, the egocentricity which would enable them to refuse to answer my questions and do my work.

"Frankly, without them this whole structure"—his hands swept out widely—"my whole asteroidal kingdom, would have been impossible. Most of my problems in constructing it were solved here. And in the future other problems, far greater, will be solved here!"

HAWK CARSE by now understood very well Dr. Ku Sui's purpose in bringing M. S. Leithgow to his laboratory, and was already goading his brain in search of a way out. Death was by all means preferable to what the Eurasian intended—death self-inflicted, and death that mutilated the brain—but there were no present chances that his searching mind could see.

If Leithgow suspected what was in store, his face gave no sign of it. He only said:

"Dr. Ku, of all the things you have ever done, this is the most heartless and most vile. I would have thought there was a limit in you somewhere, but this—this thing—this horrible life you have condemned these five men to——"

He could not continue. The Eurasian only smiled, and replied, with his always seeming courtesy:

"Your opinion is natural Master: I could expect no other. But when great ends are to be gained, he who would gain them must strip himself of those disturbing atavistic things we call the tender emotions. The pathway to power is not for those who wince at the sight of blood, who weep at the need for death. I hope, for special reasons, that you'll make an effort to understand this before we come to the phase which will follow my demonstration.

"Now, please allow me to show you my coordinated brains in useful operation. Will you be seated again? You, too, Captain Carse."

IT was Ku Sui's show: there was nothing for the two men but to obey. But they felt, both of them, a great unnaturalness in being seated for the demonstration to come.

"Thank you," the Eurasian said, and went to the panel flanking the case. There, he turned and remarked: "Before we begin, I must ask you to remember that the opinions of my brains may always be accepted as the probable truth, and always, absolutely, are they honest and without prejudice." He threw a small knife switch and again turned. Nothing seemed to happen.

"I have contrived, of course, an artificial way of communicating with my helpers. This inset grille here contains both microphone and speaker—ear and mouth.

"The ear picks up my words and transmits them to every brain. If I have asked a question, it is individually considered and the respective answers sent to the master brain; they are there coordinated and the result spoken to me by means of the mechanical mouth. When the opinions of the individual brains do not agree, the answer is in the form of a poll, often with brief mention of points pro and con. Sometimes their meditations take considerable time; but simple questions always bring a prompt and unanimous answer. Shall we try them now?"

The man's spectators did not answer; even the Hawk was for once in his life too overcome by conflicting feelings of horror and dread, and compelling morbid fascination. Dr. Ku paused dramatically, a slight smile on his enigmatic lips; then turned his head and spoke into the grille.

"Do you hear me?" he asked, easily and confidently.

The silence in the laboratory was for one brief moment almost overpowering. Then, from the grille, came a thin metallic voice. Inhuman, artificial, it sounded in the tense strain of the silent room, voice from the living dead that it was.

"I do," were its words.

"Strange," mused the Eurasian, half aloud, "that their collective answer is always given as 'I.' What obscure telescoping of egotisms can be the cause of that."

He dropped the mood of wonder at once. "Tell me," he said, looking deliberately at Leithgow: "Would the brain of Master Scientist Eliot Leithgow be more valuable in the position of the master brain than Cram's?"

A horrible eternity passed. Again came the inhuman voice:

"I have answered that question before. Yes."

DR. KU broke the stunned silence that followed this verdict.

"Don't forget that several ray-guns are centered on you, Carse," he remarked casually. "Others, black, are on you. Earthlings would no doubt consider your emotions very creditable; I only suggest that you keep them under control."

But the Hawk had given no slightest intimation that he might attempt anything. He sat quietly, a little tensely, his face an icy mask, only the freezing shock of his steady gray eyes betraying his emotion as they bore straight into those of the Eurasian. No man could meet such eyes for long, and even the tiger ones of Ku Sui the all-powerful went aside at the icy murder that showed there.

Friday still stood in back of the chairs where were seated his two friends. He was

scared to death from the thing he had seen. His face was a sickly, ashy gray, and his eyes large round rolling white marbles; but at the slightest sign of a break he would have metamorphosed into a demon of destruction, however hopeless the try, with ray-guns covering him at all times. Such was his love and loyalty for his famous master.

Eliot Leithgow was a man resigned. His head sank down on his chest. Dr. Ku's next words, though aimed at him, did not seem to penetrate his consciousness.

"You see, Master Leithgow, I have no choice. My purposes are all-important; they always come first; they demand this substitution. Were your intellect of lesser stature, I would have no interest in you whatever. But as it is." He shrugged.

Hawk Carse stood up.

The Eurasian's voice fell away. The ensuing silence gave an icy, clear-cut sharpness to the whisper that then cut through it from thin lips that barely moved:

"God help you, Ku Sui, if you do it. God help you."

DR. KU SUI smiled deprecatingly and again shrugged.

"I have told you before that God helps those who help themselves. I have always had splendid results from helping myself."

For a moment he looked away as he considered something in his mind. Then to his veiled eyes came the old mocking irony, and he said:

"I think perhaps you'd like to observe the operations, my friend, and I'm going to allow you to. Not here—no. I could never have you interrupting; the series of operations is of infinite delicacy and will require weeks. But I can make other arrangements; I can give you as good as ringside seats for each performance. A small visi-screen might be attached to one wall of your cell to enable you to see every detail of what transpires here." His tone suddenly stiffened. "I wouldn't, Carse!"

The Hawk relaxed from the brink on which he had wavered. A sudden mad rush—what else remained? What else? For an instant he had lost his head—one of the several times in his whole life. Just for an instant he had forgotten his phenomenal patience under torture, his own axiom that in every tight place there was a way out.

"That's much safer," said Ku Sui. "Perhaps you and the black had better return to your cell."

Certain little muscles in the Hawk's face were trembling as he turned to go, and his feet would not work well. The ray-guns of the coolie-guards covered his every move. Friday followed just behind.

As the adventurer came to the door he stopped and turned, and his eyes went back to those of the frail, elderly scientist.

The doomed man met the gray eyes and their agony with a smile.

"It's all right, old comrade," he said. "Just remember to destroy this hellish device, if you ever possibly can. My love to Sandra; and to her, and my dear ones on Earth, anything but the truth. Farewell."

Carse's fingernails bit each one into his palms. He hesitated; tried, but could not speak.

"All right, Carse—you may go."

The feelingless guards nudged white man and black out, and the door swung solidly closed behind them.

Chapter 10 In the Visi-Screen

THERE were those among the few claiming to have any insight into the real Hawk Carse who declared that a month went out of his life for every minute he spent

in the cell then. The story, of course, came trickling out through various unreliable sources; we who delve in the lore of the great adventurer have to thank for our authorities Sewell, the great historian of that generation—who personally traveled several million miles to get what meager facts the Hawk would divulge concerning his life and career—equally with Friday, who shared this particular adventure with him. Friday's emotional eyes no doubt colored his memory of the scenes he passed through, and it is likely that the facts lost nothing in the simple dramatic way he would relate them.

But certainly the black was as fearful of his master during that period in the cell as he was of what he saw acted out on the screen.

We can picture him telling of the ordeal, his big eyes rolling and his deep rich voice trembling with the memories stamped forever in his brain; and picture too the men who, at one time or another, listened to him, fascinated, their mouths agape and a tickling down the length of their spines. It was probably only Friday's genius as a narrator which later caused some of his listeners to swear that new lines were grooved in Carse's face and a few flaxen hairs silvered by the minutes he spent watching Eliot Leithgow strapped down on that operating table, close to the beautiful surgeon fingers of Dr. Ku Sui.

But whether or not that period of torture really pierced through his iron emotional guard and set its mark on him permanently by aging him, it is impossible to say. However, there were deep things in Hawk Carse, and the deepest among them were the ties binding him to his friends; there was also that certain cold vanity; and considering these it is probable that he came very close indeed to the brink of some frightening emotional abyss, before which he had few shreds of mind and body-discipline left.

HE reentered the cell like a ghost; he stood very still, his hands slowly clenching and unclenching behind his back, and his pale face inclined low, so that the chin rested on his chest. So he stood for some minutes, Friday not daring to disturb him, until the single door that gave entrance clicked in its lock and opened again. At this he raised his head. Five men came in, all coolies, three of whom had ray-guns which they kept scrupulously on the white man and black while the other two rigged up an apparatus well up on one of the cell walls. They remained wholly unaffected the several times their dull eyes met those of the Hawk. Perhaps, being mechanicalized humans, practically robots, they got no reaction from the icy gray eyes in his strained white face.

The device they attached was some two square feet of faintly gleaming screen, rimmed by metal and with little behind it other than two small enclosed tubes, a cup-like projector with wires looping several terminals on its exterior, and a length of black, rubberized cable, which last was passed through one of the five-inch ventilating slits high in the wall. Carse regarded it with his hard stare until the door clicked behind the coolies and they were once more alone. Then his head returned to its bowed position, and Friday approached the apparatus and began to examine it with the curiosity of the born mechanic he was.

"Let it be, Friday," the Hawk ordered tonelessly.

A dozen minutes passed in silence.

The silence was outward: there was no quiet in the adventurer's head. He could not stop the sharp remorseless voice which kept sounding in his brain. Its pitiless words

flailed him unceasingly with their stinging taunts. "You—you whom they call the Hawk," it would say; "you, the infallible one—you, so recklessly, egotistically confident—you have brought this to pass! Not only have you allowed yourself to be trapped, but Eliot Leithgow! He is out there now; and soon his brain will be condemned forever to that which you have seen! The brain that trusted you! And you have brought this to pass! Yours the blame, the never-failing Hawk! All yours—yours—yours!"

A voice reached him from far away. A soft negro voice which said, timidly:

"They're beginning, suh. Captain Carse? On the screen, suh; they're beginning."

That was worse. The real ordeal was approaching. True, he might have thrown himself on the coolie-guards who had just left—but his death would not have helped old M. S.

Friday spoke again, and this time his words leaped roaring into Carse's ears. He raised his head and looked.

The tubes behind the screen were crackling, and the screen itself had come to life. He was looking at the laboratory. But the place was changed.

WHAT had before been a wide circular room, with complicated machines and unnamed scientific apparatus following only its walls, so as to leave the center of its floor empty and free from obstructions, was now a place of deep shadow pierced by a broad cone of blinding white light which shafted down from some source overhead and threw into brilliant emphasis only the center of the room.

The light struck straight down upon an operating table. At its head stood a squat metal cylinder sprouting a long flexible tube which ended in a cone—no doubt the anesthetizing apparatus. A stepped-back tier of white metal drawers flanked one side of the table, upon its various upper surfaces an array of gleaming surgeon's tools. In neat squads they lay there: long thin knives with straight and curved cutting edges; handled wires, curved into hooks and eccentric corkscrew shapes; scalpels of different sizes; forceps, clasps, retractors, odd metal claws, circular saw-blades and a variety of other unclassified instruments. Sterilizers were convenient to one side, a thin wraith of steam drifting up from them into the source of the light.

Four men worked within the brilliant shaft of illumination—four white-clad figures, hands gloved and faces swathed in surgeons' masks. Only their lifeless eyes were visible, concentrated on their tasks of preparation. Steam rose in increased mists as one figure lifted back the lid of a sterilizer and dropped in some gleaming instruments. The cloud swirled around his masked face and body with devilish infernolike effect.

All this in deadest silence. From the darkness came another figure, tall and commanding, a shape whose black silk garments struck a new note in the dazzling whiteness of the scene. He was pulling on operating gloves. His slanted eyes showed keen and watchful through the eyeholes of the mask he already wore, as he surveyed the preparations. Ominous Ku Sui looked, among his white-clad assistants.

The Eurasian seemed to give an order, and a white figure turned and glanced off into the surrounding darkness, raising one hand. A door showed in faint outline as it opened. Through the door two shadows moved, wheeling something long and flat between them.

They came into the light, two coolies,

and wheeled their conveyance alongside the operating table. Then they turned into the darkness and were gone.

"Oh!" gasped Friday. "They've shaved off his head!"

THE frail form of Eliot Leithgow, clad to the neck in loose white garments, showed clearly as he was lifted to the operating table. As Friday said, his hair was all gone—shaved off close—stunning verification of what was to happen. Awfully alone and helpless he looked, yet his face was calm and he lay there composed, watching his soulless inquisitors with keen blue eyes. But his expression altered when Dr. Ku appeared over him and felt and prodded his naked head.

"I can't stand this!"

It was a whisper of agony in the silence of the cell where the two men stood watching, a cry from the fiber of the Hawk's innermost self. The path he left across the frontiers of space was primarily a lonely one; but Friday and Eliot Leithgow and two or three others were friends and very precious to him, and they received all the emotion in his tough, hard soul. Especially Leithgow—old, alone, dishonored on Earth, frail and nearing the end of the long years—he needed protection. He had trusted Carse.

Trusted him! And now this!

Ku Sui's fingers were prodding Leithgow's head like that of any dumb animal chosen as subject for experimentation. Prodding. Feeling.

"I can't stand it!" the Hawk whispered again.

The mask on his face, that famous self-imposed mask that hid all emotion, had broken. Lines were there, deep with agony; tiny drops of sweat stood out all over. He saw Ku Sui pick up something and adjust it to his grip while looking down at the man who lay, now strapped on the table. He saw him nod curtly to an assistant; saw the anesthetic cylinder wheeled up a little closer, and the dials on it set to quivering.

His hands came up and covered his eyes. But only for a moment. He would not be able to keep his sight away. That was the exquisite torture the Eurasian had counted on: he well knew as he had arranged it that the adventurer would not be able to hold his eyes from the screen. Carse had to look!

He took away his hands and raised his eyes.

The screen was blank!

FRIDAY looked up with a grin from where he was kneeling before the knob on the door of the cell. Carse saw that the knob was of metal, centered in an inset square of some dull fibrous composition.

"This door has an electric lock, suh," the negro explained rapidly. "And things worked by electricity can often be short-circuited!"

Quickly and silently he had disconnected from the television projector the wire which led back through the ventilating slit in the wall, and now was holding its end with one hand while with the other he twisted out the screw which held in the knob. "Anyway, won't hurt to try," he said, removing the screw and laying it on the floor. In another second the knob lay beside it, and he was squinting into the hole where it had fitted.

"Be quick!" Carse whispered.

Friday did not answer. He was guessing at the location of the mechanism within, and trying to summon up all the knowledge he had of such things. After a moment he bent one of the live ends of the wire he was holding into a gentle curve and felt his way

down within the lock with it, carefully keeping the other end clear of all contacts.

Seconds went by as his fingers delicately worked—seconds that told terribly on Hawk Carse. For the screen was blank and lifeless, and there was no way of knowing how far the work in the laboratory had meanwhile progressed. In his mind remained each detail of the scene as he had viewed it last: the strapped-down figure, the approaching anesthetic cylinder, the knives lying in readiness. How was he to know if one of those instruments were not already tinged with scarlet?

"Oh, be quick!" he cried again.

"If I can touch a live part of the lock's circuit," grunted Friday, absorbed, "there ought—to—be—trouble."

SUDDENLY currents clashed with a sputtering hiss, and a shower of sparks shot out of the knob-hole and were instantly gone. Short-circuited! It remained to be seen whether it had destroyed the mechanism of the lock. Friday dropped the hot, burned-through wire he was holding and reached for the knob, but the Hawk had leaped into life and was ahead of him.

In a moment the knob was in the door and its holding screw part-way in. Gently the Hawk tried the knob. It turned!

But they did not leave the cell—then. Ku Sui's voice was echoing through the room, more than a trace of irritation in its tone:

"Hawk Carse, you are beginning to annoy me—you and your too-clever black satellite."

Carse's eyes flashed to the ceiling. A small disklike object, almost unnoticeable, lay flat against it in one place.

"Yes," continued Ku Sui, "I can talk to you, hear you and see you. I believe you have succeeded in destroying the lock. So open it and glance into the corridor—and escape, if you still want to. I rather wish you'd try, for I'm extremely busy and must not be disturbed again."

Graven-faced, without comment Carse turned the knob and opened the door an inch. He peeped through, Friday doing so also over his head—peeped right into the muzzles of four ray-guns, held by an equal number of coolie-guards waiting there.

"So that's it," Friday said, dejectedly. "He saw me workin' on the lock an' sent those guards here at once. Or else had them there all the time."

THE Hawk closed the door and considered what to do. Ku Sui's voice returned.

"Yes," it sounded metallically, "I've an assistant posted here who's watching every move you make. Don't, therefore, hope to surprise me by anything you may do.

"Now I am going to resume work. Reconnect the screen: I've had the burned-out fuse replaced. If you won't, I'll have it done for you—and have you so bound that you'll be forced to look at it.

"Don't tamper with any of my hearing and seeing mechanisms again, please. If you do, I will be forced to have you destroyed within five minutes.

"But—if you'd like to leave your cell, you have my full permission. You should find it easy, now that the lock is broken."

The voice said no more. Carse ordered Friday harshly:

"Reconnect the screen."

The negro hastened to obey. His master's gray eyes again fastened on the screen. Fiercely, for a moment, he smoothed his bangs.

The laboratory flashed into clear outline again. There was the shaft of white light; the operating table, full under it; the anesthetic cylinder, the banks of instru-

ments, the sterilizers with their wisps of steam curling ceaselessly up. There were the efficient white-clad assistant-surgeons, their dull eyes showing through the holes in their masks. And there was the black figure of Ku Sui, an ironic smile on his lips, and before him the resigned and helpless form of Eliot Leithgow.

The Eurasian gestured. An assistant found the pulse in Leithgow's wrist, and another bent over him in such fashion that the prisoners could not see what he was doing. Ku Sui too bent over, something in his hands. The prelude to living death had begun.

AT that moment Hawk Carse was a different man, recovered from the weakness that had made him cry out at his friend's imminent destruction a short time before. The old characteristic fierceness and recklessness had come back to him; he had decided on action—on probable death. "I've been too cautious!" he exclaimed violently in his thoughts.

"Friday!" he whispered sharply to the negro, going close.

"Yes, suh?"

"Four men outside—a sudden charge through that door when I nod. We'll die, too, by God! Willing?"

Friday was held by the man's iron will to succeed or die. Without hesitation he whispered back:

"Yes, suh!"

Their whispers had been low. Dr. Ku Sui had not been warned, for the screen still showed him bending over his victim.

"You'll open the door; you're nearest. I'll go through first," the Hawk murmured, and smiled at the loyalty behind the promptness of his man's grin of understanding.

Then both smiles faded. The muscles of the negro's huge body bunched in readiness for the signal as tensely he watched the flaxen-haired head close to him.

Suddenly it nodded.

The door swung wide and white man and black went charging out.

And immediately there burst in their ears the furious clanging of a general alarm bell, sounding throughout the whole building!

Chapter 11 Trapped in the Laboratory

IN his carefully welded plot-chain, Ku Sui left one weak link, though he was not aware of it at the time. For it would not appear save by the testing of it, and he had not expected it to be tested. Carse acted recklessly; perhaps, if cold reason be applied to his move, senselessly. Dr. Ku had not thought he would dare make the break he did. But the adventurer did dare, and the loophole, the weak link, was exposed.

The Eurasian had a paranoic's vanity, and with it a lust accumulated over years to exact the most terrible vengeance he could from the adventurer who had frustrated his schemes time and time again. His arrangement for subtly forcing Carse to watch the operation was part of his vengeance; but he planned more. He wanted his old foe, broken by the living death of Eliot Leithgow, to die slowly later; wanted to crumple that will of steel utterly; wanted to watch and pleasantly mock him during the slow death agonies he had contrived for him. Therefore—and here lay the weak link—Dr. Ku left orders for Carse to be kept alive.

If he had not instructed his coolie-guards to wound, and not kill, in case of a break for freedom, Carse and Friday could

never possibly have gained the corridor alive. The four waiting ray-guns would have burned out their lives within three seconds. But, as it was, the barrage of shots from the ray-guns was directed at their legs, with the intention of bringing them down—and their legs were moving very rapidly. And so, reckoning up the caliber of the two comrades, their wild fighting start, their fatalistic resolve to get as many as possible of the enemy before they died, the result of that first hectic scramble in the corridor was more or less inevitable.

WITH a savage war-whoop that rose, ear-shattering, above the clanging of the alarm bell, Friday flung his two hundred and twenty pounds of brawn and muscle after Carse into the thick of the guards, taking no more notice of the spitting streaks of orange light that laced past his legs than if they had been squirts from a water-pistol. The guards had been bunched well together, but they scattered like ten-pins when Carse, followed by the living thunderbolt of fighting negro, crashed into them. In that first charge three of them were knocked flat, their guns either dropping or twisting loose from their hands.

Immediately recovering, the Hawk darted at the fourth with the speed of a striking cobra; his wiry hands closed around the yellow throat: and two seconds later that coolie was no longer connected with the proceedings, a whacking head-thump being his passport into insensibility. Again Friday's exultant war-whoop bellowed out over the scene.

Carse pushed to his feet, his deadly fighting smile on his face, a ray-gun in his hand. He stooped and picked up another.

"Get to the Master!" roared Friday, an ebon god of war between two futilely attacking bodies. "I'm—followin'!"

In those red seconds, ultimate success was still too impossible a thing to even hope for. But they would at least try, then die like the men they were.

Hawk Carse sped on down the corridor, a deadly, smoothly-functioning fighting machine. And after him a few seconds later came leaping the negro, a whooping giant with a ray-gun in each hand and the light of battle flashing in his eyes. As his personal contribution to the fight he was leaving in the rear three sprawled bodies, two knocked cold and the third with a broken neck.

Their triumph had so far been a matter of but sixty seconds. The jangle of the alarm bell continued ominously. It summoned resistance, well-trained resistance; the defenses of the asteroid awoke to action. Doors spacing the corridor behind now began to open, releasing dozens of Orientals. Nor had these men heard Ku Sui's orders. They would shoot to kill!

THREE peering faces suddenly were in Hawk Carse's line of vision ahead: three ray-guns were settling on him. His famous left hand, the gun-hand that was known and dreaded throughout space, moved with the eye-blinding speed that was necessary; his trigger finger bent only three times, but each of the pencil-thin streaks of orange that spat forth brought down a man, and he had struck without slackening his stride for an instant.

Twice more his ray-gun spoke, and then the goal, the entrance to the central laboratory, was just ahead. Carse glanced back.

"Yes, suh!" a fierce voice yelled out to him. "Coming!"

Friday was bringing up the rear as fast as he could. He came sideways in a zigzag course ducking and whirling constantly, and in between firing promptly at any portions of enemy anatomies that dared project

into the line of the corridor. The Hawk covered the last few yards of his retreat, and then they were together at the laboratory.

"The knob!" Carse ordered, spraying the corridor in general warning.

Friday tried it, but the door was locked. He hurled himself against it, but it did not budge.

How to get through? On the other side of the door was Leithgow, and probably Ku Sui; on this side they were trapped in a blind end. They could never make it back down that gauntlet and live, and anything like concerted action on the part of the yellows would do for them where they were.

That concerted action came at once. Seventy feet behind, a heavy shot-projector was pushed out on its little rollers from one of the doors. A hand reached out and whirled it so that its muzzle bore straight down the corridor at them. Carse shot at the hand, but the target was too small even for his fine eye, and he missed; Friday silenced an emboldened orange spot of light that was spitting streaks at them.

Hopeless! It looked like the end. Hawk Carse's face was in its old, emotionless mold as he waited, his gun sharp on the spot where the hand must reappear if they would fire the deadly projector. He had to get that hand—and any others that took its place. An almost impossible shot. He couldn't rush it and get it too. Not in time.

A moment passed. The hand flashed out; Carse shot and again missed. Then a narrow cone was along the corridor, a blinding orange streak. Instantly, with a rasp of thunder, it was gone, and the air was stifling.

The Hawk was untouched; Friday, too, he saw. The bolt had been taken by the door—and one of the door's two halves was ajar!

AT once Hawk Carse acted. "Inside!" he yelled, then was through, the negro right behind. Carse's eyes swept the laboratory. It was a place of shadows, the sole light being a faint gleam from a tiny bulb-tipped surgical tool which glimmered weirdly from the bank of instruments waiting by the operating table. Carse saw no one.

"Hold the door!" he ordered. "I don't think it'll lock!"

Friday obeyed. He found the inner bolt melted and the lock inoperative; and, placing his forearms on either side of the middle crack of the door, he stood bracing it.

A furious pounding shook the door. A heavy pressure bent it inward.

"Quick!" the big black gasped. "Somethin' to wedge it!"

"A minute, Friday," the Hawk answered. "Hold it!"

He was already dragging a metal table there; and, upended under the knob, making an angle with the floor, it held stoutly closed the door, now thumping and quivering with blows given it from outside. The panting negro fell back from the door exhausted, but rose to help his master at the need for placing additional barricades.

That finished, the Hawk wheeled, and at once, pantherlike, ray-guns at the ready, stalked the room. There was no sign of the enemy. He approached the operating table.

A great relief flooded his grim face as he sighted Eliot Leithgow lying there, apparently untouched and still conscious. The elderly scientist was strapped down tight, but he was smiling.

"I knew you'd come, Carse, if you could," he said simply.

There was no time for visiting. "Where's Ku Sui?" the adventurer asked.

"Gone," Leithgow answered. "I heard a door open and close—which one I

couldn't see. He went as soon as that bell began to ring. The assistants, too."

Through the shouts and batterings at the barricaded door came a new sound—from another direction. Like a streak the Hawk was at one of the three other doors, throwing its inside hand bolt; and by the time he had shot over the second, Friday had taken the cue and secured the remaining one.

The negro let out a vast breath. "Umph!" he said. "I'll tell the universe that was close!"

HAWK CARSE said nothing. With eyes ever-watchful for sign of a trick or a trap in the apparently deserted laboratory, he quickly unbuckled the bands that held Leithgow to the operating table. Friday lifted the scientist to the floor, where he stretched weakly.

The adventurer smiled faintly, then his eyes went cold and serious. Crisply he said:

"We came, yes—but now I think we're trapped. There'll be men outside each of these four doors. The bolts may hold them a while, but eventually they'll get through. We must look for further weapons. If only there were better light! Friday," he ordered, "look for a switch. Ah!"

With a thud and a booming reverberation a systematic battering had begun on the metal door through which they had entered. It quivered visibly and rang as the powerful blows from the other side bludgeoned into it, and evenly spaced, shrewdly delivered at the vital middle point. Whrang, whrang—even strokes, ringing throughout the barred laboratory—whrang whrang.

And then a similar piece settled into clanging routine on another door; then on the remaining two. The bolts holding them jumped with each deafening thud. Friday scowled, forgot to search farther for the switch, took a few short, indecisive steps, and then stood still again, looking questioningly at his master. The Hawk stood silent also, smoothing the bangs of flaxen hair above one temple, his face knit in concentration.

He had been afraid they would use the great projector on the door, and had been somewhat cheered by the reflection that they dared not, for fear of destroying the contents of the laboratory, especially the irreplaceable brains. But this was worse; Ku Sui was without question directing their efforts now. And that being the case, he could expect to see one door after another battered down—and then a concerted, four-point rush which would end everything.

ELIOT LEITHGOW said the extraordinary thing that pointed a way out. "May I suggest," he said mildly, "that we try to get Dr. Ku Sui's brains to help us?"

"What do you mean?"

The older man smiled, a little sadly. "Those brains—they once were friends of mine. It's possible they'll answer our questions. It won't hurt to try. We'll ask them how it might be possible to get out."

Hawk Carse cried: "Eliot, you've got it! There is a chance!"

But the negro shivered. The brains stood for magic, for ghosts—for awful, unknown things he wanted nothing to do with.

Carse shoved back the screen concealing the infamous device.

"We know where this switch is, at least. If only the current's not been turned off!"

"Probably not," the Master Scientist said, out of his own technical thought-train.

Friday hung back, loath to be concerned. He looked askance at the thing, his open mouth a small round circle.

The Hawk was at the switch, but his

hand hesitated. In spite of the emergency at the doors, in spite of his innate promptness of action, he hesitated. This thing he was about to do—this awful human mechanism before him—they were so weird and unnatural.

Then he heard a faint click inside the laboratory—in a place where no one should be. Instinctively he whirled and crouched—and an orange ray streaked over his head with its wicked spit of death. At once his own ray-gun was up and answering to the spot where the other bolt had started, and then he was flat on the floor and ceiling toward the wall opposite.

A HIGH wide panel in the wall had slid open, with only the faint noise Carse had heard to mark its movement. For just a few seconds it stayed open. The Hawk covered the last few feet in a desperate rush, but he reached it too late. It clicked shut in his face, and there was no hold for his hands when he tried to force it back.

Only a voice showed that someone was on the other side. In familiar, suave tones it said:

"Carse, I still will take you and Leithgow—alive. It would of course be idle to ask you to surrender, but that's not necessary, for you're trapped and can't possibly last another five minutes. I intrude only to warn you away from my synchronized brains. I will destroy without compunction anyone who meddles with them."

Dr. Ku's voice dropped away; the last words seemed to have come from below. Apparently he was descending by a stairway or hidden elevator.

"Without compunction!" Leithgow echoed with a bitter smile.

Carse ordered Friday curtly to watch the panel, then returned to Leithgow.

"Eliot," he said, "we've got to be quick."

And with his words the delicate, overstrained filament in the tiny instrument bulb gave out, and the laboratory was plunged into ultimate blackness.

Chapter 12 Out Under the Dome

WITHIN the well of darkness rang the metallic reverberations from the battering on the four doors all around. The fluid nothingness was a place of fear. Its nerve-shattering, mind-confusing bedlam might have come from the fantastic anvils of some giant, malevolent blacksmith.

The Hawk's curt voice cut through imperatively:

"Keep your heads. We'll have a light in a second. Light of a sort."

He threw the switch by the side of the chamber of brains.

Seconds passed, and where was darkness grew a faint glow. The switch had operated; the current, probably from the device's own batteries, was there! Quickly and steadily the liquid within the case took on its self-originating glow, until the midnight laboratory was faintly washed with the delicate rosy light. The wires emerged in their complexity as before, and then the brains, all gruesome and naked in their cradles of unnatural life.

Around the internally-lit case were the three besieged Earthlings, half in blackness, the light from the front making ghastly shadows on their faces. Acolites at some sorcerer's rite they looked, with the long inky patches that left them to dissolve formlessly against the far walls of the room.

Grotesque in the operating garments he wore, his bald head shining in the eery light, Eliot Leithgow approached the microphone Dr. Ku had used to communicate with his pathetic subjects. He looked down at the

brains, at the wires which threaded the pans they lay in, at the narrow gray tubes that pulsed with blood—or whatever might be the fluid used in its stead. All mechanical was the apparatus—all of metal and other cunningly fashioned man-made materials—all but the brains.

TO the old Master Scientist there came a vision of five human figures, rising specterlike from the case they were entombed in; straight, proud young figures, two of them; two others old, like himself, and the fifth a gnarled hunchback. Very different were they, each from each other, but each face had its mark of genius; and each face, to Eliot Leithgow, was warm and smiling, for these five men were friends.

So he saw them in vision.

"Another switch has to be thrown to talk with them, Carse," he said. The Hawk indicated one inquiringly. Leithgow nodded. "Yes. That was it." The switch went over.

He steadied himself and said into the speaking grille:

"I am Eliot Leithgow—Master Scientist Eliot Leithgow. Once you knew me. Professors Geinst, Estapp and Norman, Dr. Swanson and Master Scientist Cram—do you remember me? Do you remember how once we worked together; how, long ago on our Earth, we were friends? Do you remember your old colleague, Leithgow?"

He stopped, deeply shaken. In seconds his mind sped back through the years to those five men as he had last seen them—and to two women he had met, calm-faced as their husband-scientists. God forbid those women should ever learn of this!

Carse watched his old comrade closely, fearful of the strain this was on him.

Then came a cold, thin, mechanical voice.

"Yes, Master Scientist Eliot Leithgow. I remember you well."

The scientist strove to keep level his voice as he continued:

"Two friends and I are trapped here. Dr. Ku Sui desires my brain. He wishes to add it to——" He stammered, halted; then burst out: "If it would help you in any way, I'd give it gladly! But it couldn't, I know; it would only aid his power-mad schemes. So my friends and I must escape. And we can see now no way!

"You can hear that noise? It's very loud; men are outside each door, battering at them, and soon they must break through. How can we escape? Do you know of a way, out of your knowledge of conditions here? Will you tell me, old colleagues?"

He waited.

FIFTY feet away from this scene, and missing almost all of it, was Friday. From his post at the panel he kept throwing fearful looks at the nearest door, which was shuddering and clanging and threatening any moment to be wrenched off its hinges. A good thing—he was thinking—that the doors were of stout metal. When one did go he would get five or six of the soulless devils before they brought him down.

Carse waited tensely for the response—if one there was to be. His ears were throbbing in unison with the regular crash of rams on metal, but his eyes never left the convoluted mounds of intelligent matter so fantastically featured by the internal radiance of the life-giving liquid. Impossible, it seemed, that thoughts were stirring inside those gruesome things.

"Please hurry!" he said in a low voice; and Leithgow repeated desperately:

"How can we escape? Please be quick!"

Then the miracle of mechanism and matter functioned and again gave forth the

cold voice of the living dead.

"It is my disposition to help you, Eliot Leithgow. On a shelf under one of the tables in this room you will find a portable heat-ray. Melt a hole in the ceiling and go out through the roof."

"Then what can we do?"

"In lockers behind the table there are space-suits, hanging ready for emergencies. Don them and leave through one of the asteroid's port-locks."

"Ask if the ports are sealed," Carse interjected instantly.

Leithgow asked the question.

"Yes," replied the unhuman voice. "But twice four to the right will open any of them."

THE Master Scientist wiped his brow. Though trembling under the strain of conversing with this machine on which his life depended, he did not overlook a single point.

"But the asteroid's gravital pull would hold us close to it," he said. "Is there a way of breaking free from it?"

"You'll find the space-suits are equipped with small generators and gravity-plates which I helped Ku Sui develop. The switch and main control are in the left-hand glove."

"Thank you! Oh, thank you! You give us a chance!" exclaimed old Leithgow.

He turned and looked for the Hawk, and found him already in the lockers and pulling out three space-suits. The clumsy, heavy cone of a portable heat-ray lay on the table ready to hand.

They had little time to waste. The torrid temperature of a new smell of burned metal around the door they had just entered told them as well as words that the large projector in the corridor was at last being used to bore a way in.

With surprising strength in one so slender, Carse lifted the ray and pointed it at an angle toward the middle of the ceiling. He pressed the control button, and a blinding stream of violet radiance splashed against the metal above. It hissed and sputtered where it touched; molten drops fell sizzling and splattering to the floor; then suddenly there was a flood of ruddy illumination, and the Hawk dropped the heat-ray, stepped forward and looked up.

UP through a neatly melted round hole, up at the great glasslike dome which arched over the whole settlement—up, past it, into the vast face of Jupiter, hanging out there oppressively near!

Friday, champing for action, left his post by the panel and dragged a long low cabinet to position under the hole. On top of it he placed the operating table, and, after he had tripped the table's small wheels, another table on top of that.

"You first, Eclipse!" his master rapped out as he finished. "I'll pass the suits to you; then swing Leithgow up."

The negro answered by acting. Swiftly he climbed the rude pile, and reached for the edge of the hole. It was still searingly hot, and he gasped with hurt as his palms and fingers clenched over it, but he did not let go. Levering himself rapidly up, he got a leg through and then his body. A second later he peered back in and lowered his hands down.

"No one up here yet!" he reported. "All right for the suits!"

Carse passed the three bulky suits to him, and also two extra ray-guns he had found in the locker.

"Now, Eliot—up!"

With the Hawk's help, Leithgow clambered onto the cabinet. He was just mounting the operating table when, from behind,

came a thin, metallic voice:

"Master Leithgow—Eliot Leithgow—please, a favor?"

LEITHGOW turned and stared, then understood. It was the coordinated brains. They had forgotten to return the switches. And now the cold voice was speaking of its own accord; and somehow—though it might have been imagination entirely—there seemed to be a tinge of loneliness to the words that sounded from its speaker.

Instantly Leithgow got down and hurried over to the grille. Seconds were precious, but Carse and he were heavily obligated to the brains, and any request in reason had to be fulfilled.

"Yes. What can I possibly do?"

The lower hinge of one side of the barricaded door gave, burned out, and the door wrenched inward at a resumption of the battering. The other hinge still held, but it was bending with each mighty blow. Outwardly calm, Hawk Carse watched the weakening door, a gun in each hand.

"This," said the toneless voice: "Destroy me. Leave no slightest trace. I live in hell, and have no way to move. There are old memories things that once were dear Earth my homes my lives there. Eliot Leithgow, destroy me. But promise, on your honor as a Master Scientist, never to let a single word regarding my fate reach those on Earth who knew me, loved me."

Leithgow looked at the Hawk. The adventurer nodded.

"I'll use the heat-ray," he said, with pity.

He ran and picked it up. But he had taken only one step in return when the second hinge of the yielding door wrenched free. An ear-piercing screech rent the bedlam—and the door fell, half twisting, to lie in the doorway.

As if by a signal the crashing at the other doors stopped. In an extraordinary silence a mob of gray-smocked bodies pressed forward.

Orange streaks laced the dim laboratory. The Hawk shouted, "Up, Eliot! For God's sake, up!" as, with deadly effect, he poured his two ray-guns at the advancing men.

For a second, shaken by the terrible barrage, they fell back, leaving several sprawled bodies on the floor; but they came right back again.

Leithgow got safely to the top of the pile and was snatched out to temporary safety. Frantically Friday called down to his master; he seemed on the point of jumping down into the fight himself. But Hawk Carse had been party to a promise.

He was behind the structure of furniture under the hole he had made in the ceiling. With one gun he spat death at the coolies, while the other he emptied at the case of brains. Two stabbing streams of orange angled from him, one telling with awful effect on the men only two score feet away, and the other absolutely useless. All over the still-glowing case it spat its hits, but the glasslike substance resisted it completely, and remained unscathed.

Carse swore harshly. He hurled one empty gun at the case, turned with a last salvo of shots at the coolies, and then was up on the pile and leaping for Friday's hands.

They caught and gripped his, swung him once—twice—and hauled him swiftly out. But as the Hawk disappeared he shouted down the case:

"I'll be back!"

Chapter 13 The Final Mystery

ON the roof, Carse quickly scanned their situation. They were standing on the

hub of the four-winged building. Far to the left was one set of the dome's great and small port-locks; exactly opposite was the other. Near the left hand ports; a little "north," lay the Scorpion. The whole area enclosed was a flat plain of gray soil.

Looming over the great transparent dome hung the flaming disk of Jupiter, so oppressively near that it seemed about to crash onto the asteroid. Its rays poured in a ruddy flood over the settlement, clearly illuminating each detail; and comparatively close against the face of the mighty planet they could see the whitish globe of Satellite III. It offered the nearest haven. They might arrive famished, but in the power-equipped space-suits which Friday was lugging they should be able to span the gap.

The Hawk nodded to the port-locks on the left.

"That one," he snapped. "We'll have two chances, the Scorpion and the port, but the port's safest; we could never get the whole ship underway and through the lock in time. To prevent pursuit, all we have to do is leave the lock open after us."

They hastened along the roof of the wing that ran that way. As yet there was no outside pursuit; most of the settlement's guards seemed to have been concentrated in the attack on the laboratory. But Carse knew it would only be a matter of seconds before coolies would emerge from half a dozen different points. He was trying to figure out which points they were likely to be when there passed, perilously close, the spit of an orange ray. He glanced back, to see the first of the crowd which had broken into the laboratory come clambering up through the roof. Then, as a second shot sizzled by, they arrived at the end of the wing.

FRIDAY took the fifteen-foot drop without hesitation. Carse lowered Leithgow to him and then swung down himself. They panted forward again, over grayish, glittering soil.

Some three hundred yards of open space lay between them and the port-locks. Friday now led the way, weighted down under the heavy suits; the scientist came next and then the Hawk, his sole remaining gun replying at intervals to the ever-thickening barrage from behind. They had covered perhaps a half of that distance when the negro's steps suddenly faltered and he halted.

"Look there!" he groaned. "Cuttin' us off! We'll never make it, suh!"

Carse looked where he pointed, and saw a squad of half a dozen men emerging from a building well to their left. They were running at full speed for the lock, and, as Friday had said, it was obvious that they would get there first. He glanced quickly around. Pursuit from the laboratory in the rear was hot—and moreover three coolies were angling sharply out on each side, to outflank them! In a minute they would be surrounded! Unable to reach either the port or the ship!

And then came the crowning piece of ill-luck. Suddenly the Hawk winced; staggered; clapped a hand to his shoulder. A lucky shot from an enemy gun had caught him.

"You're hit!" cried Leithgow.

"It's nothing."

THE slender adventurer stood very still, thinking. He was trapped. But he was never more dangerous than when he was trapped.

Leithgow timidly ventured a suggestion.

"Why can't we put on our space-suits and rise up in the dome?"

Crisply the answer came back:

"Hard to maneuver laterally. Never get out ports. Sure death. I have it!" he ended.

Tersely he gave the two men orders:

"We've a bare chance—if I'm lucky. Now listen, and obey me exactly. Put on your space-suits. Shut them tight. Lie flat. You, Friday, use your ray-guns and keep the guards from coming close. Wait here. Do absolutely nothing save keep them off. And keep your suits intact or you're dead!"

He grabbed one of the suits from Friday and crept toward the Scorpion on hands and knees. The three coolies from the pursuit at the rear had already cut him off from the ship. Friday could not control his alarm at this apparently crazy act. He called after:

"But you can't get to the ship through those guards! And if you did, you couldn't run it yourself—and pick us up!"

Carse turned, his face white with cold passion. "When will you learn to obey me implicitly?" he said harshly—and crept on.

Old Leithgow trusted his friend a little more. "Get your suit on, Friday," he said gently, and slipped into his own. The negro, ashamed, followed his example; then both were flat on the ground, back to back, sniping—Leithgow also—as best they could under such conditions at the groups of men who now were bellying ever nearer from three directions.

The Hawk's plan might well have appeared hair-brained to one who did not know the man, and what he was capable of accomplishing under pressure. The very first step in this plan required the destroying of the three outflanking guards between him and the space-ship.

AS so often in the great adventurer's career, he was lucky. The unthinking have always admitted his luck, but never seen that he forced it—forced it by doing the unexpected—attacking when he was attacked. He was doing that now. The three coolie-guards in his way must have known who he was, so their alarm at finding themselves, the attackers, attacked, will account for their making a move of poor strategy. Instead of scattering and defending the open entrance-port of the space-ship from a short distance, they in their alarm made haste to get inside to defend it from there. The interior was the best place to defend the ship—if they had already been inside—for they could lie in the inner darkness and sweep the open port when the Hawk entered.

But to try to pass through the port—that was bad judgment. It was only necessary for Carse to hold bead on it and fire when they passed in line.

This was the present "luck" of the adventurer. He might have sniped the guards anyway, but he had it easier. From fifty yards away, prone and carefully sighting, he took the three lives that had been so viciously, so subversively altered by Ku Sui.

A moment later, the way cleared, he was inside the ship—and his space-suit lay on the ground outside.

RAPIDLY the three groups of guards closed in on Leithgow and Friday. The two men made their advance as uncomfortable as possible, but they could do no accurate shooting at such difficult targets as crawling men, from within the cramped interiors of their cumbrous suits. Not even Friday, who was a crack shot. They could not hold out long—nor did they expect to.

They had been too occupied to notice what had become of Carse. Within their suits all was silence; they heard neither their friend's shots as he struck down the three coolies nor their own. Quick glances at the ship's open port revealed no one;

nothing. Probably, they thought, the Hawk was dead. Even if he were not, they would soon be. A matter of a minute. Maybe two. Their suits were still intact, but they could not remain so much longer. Ku Sui had this time ordered them destroyed.

And now half a dozen coolies were leaving the ring tightening around them and creeping to the Scorpion as additional guards.

It was then, in those last few seconds, with death staring them in the face, that Friday did a magnificent thing. It happened that Carse saw him do it as the adventurer jumped out of the Scorpion again and with frantic speed slipped into the space-suit he had left waiting. Friday stood straight up, a hundred feet from the enemy—a great bloated monster in his padded suit—and charged. Leithgow and the Hawk heard, by their suit helmet-radios, his battle yell of defiance, but the coolies did not. All silent, apparently, he rushed them—slowly, because of his hampering suit—his ray-gun spitting orange contempt—and other pencils of fiery death passing him narrowly by.

And then, while he still charged, the rays stopped stabbing past him, and he saw the faces of the coolie-guards turn upward. So surprised was the expression on their faces, that he turned and looked too—and saw the Scorpion, her entrance ports still open, forty feet off the ground and rising with swift acceleration.

Faster and faster she rose; all ray-guns were silenced before her astounding ascent. Higher and higher—faster and faster—till with a stunning, ear-deafening crash she struck the great dome and was through.

Then came chaos.

A huge, jagged gash marked the ship's passage, and through this the air inside the dome poured with cyclonic force, snatching into in maelstrom everything unfastened within the dome and hurling it crazily into space. For seconds the flood rushed out, a visible thing, gray from the soil which it scooped up; and while its fury lasted every building on the asteroid quivered and groaned from the terrific strain.

And where, a moment before, men had stood—two white men and a black, and a score of coolie-guards—there was now nothing save the flat rock under the gaping hole. The upper soil had been ripped out and flung forth like a concealing veil around the bodies that had gone with it.

FOR an interval Hawk Carse knew nothing. He had ceased to live, it seemed, and was soaring through Eternity. He never knew how much time passed before his numbed senses began to return and he became aware of weight and of a furious roaring in his head.

He was moving forward at blinding speed. Something kept flashing before him—a wide stream of ruddy orange light: his dazed brain could connect it with nothing he had ever known. Soon the orange stream settled into spasmodic bursts, pitch blackness filling the intervals; and when it came more slowly he saw that it was in reality the vast flaming ball of Jupiter, streaking across the line of vision as he tumbled over and over, head over heels—free in space!

The realization helped his return to alertness. As the wild tumbling motion gradually ceased, and Jupiter tended to stay more and more under his feet, he peered around through his face-plate. To one side he glimpsed two grotesque, bulky figures, one half of them limned glaringly against the blackness of space by the nearby planet's light. He saw other figures, too, spread out in a scattered fringe—figures of men in smocks, dead and bloated and

white.

They were the coolies, these last, and the other two were of course Leithgow and Friday. But had they survived the outrush of air? Carse felt in his left glove for the suit's gravity control lever; found it and tentatively moved it. His acceleration slowly increased. He brought the lever part-way back. Then, into the microphone encased inside the helmet, he called:

"Leithgow! Leithgow! Can you hear me? Friday!"

The radio broadcast his words. Soon welcome answers came in Eliot Leithgow's tired voice and the negro's emphatic bass.

"Maneuver together," Carse instructed them. "We must lock arms and stay close."

SLOWLY, clumsily, the three monstrous figures made toward each other, and presently they were reunited in a close group. Carse pointed an arm into the face of Jupiter where there hung poised a gleaming globe of white, dappled with dark splotches.

"Satellite III," he said, "—our goal. And we'll get there without interruption now that Ku Sui, his laboratory, his coordinated brains, are destroyed. You are very quiet, Eliot. Aren't you happy at our success?"

"I am very tired," the old scientist said. "Oh, but we'll sleep and feast and game when we get back to my hidden lab on Three—won't we!"

"Chicken for me!" exclaimed Friday. "Even at twenty dollars a can!"

"Your shoulder, Carse—how is it?" asked the Master Scientist solicitously. "And how did you ever get out of that spaceship in time, after you had given it such an acceleration?"

There was a tired smile in the adventurer's voice when he replied:

"My shoulder—a trifle. I have a dozen such burns. But my feet still hurt from the twenty-foot drop I took out of theScorpion. I had to get out: the shock of the crash would have killed me.

"But I've been looking for the asteroid," he went on—and interrupted himself. "By the horn of the phanti!" he exclaimed in amazement. "Look, Eliot! That explains it all!"

His whole body was tilted back to allow him to look upward. Friday and the Master Scientist followed his startled gaze, and they too gaped in wonder.

For there was nothing above or around them—no dwindling fragment of rock—no sign of any asteroid: only the eternal stars.

"Yes," said Eliot Leithgow slowly, "that explains it all."

"It explains what?" asked Friday, staring. "And where is the asteroid?"

"It's up there," the Hawk replied. "Don't you see now, Eclipse, why no one's ever found it; why we could hunt forever for it and hunt in vain? Ku Sui made his whole asteroid invisible!"

THE BEASTS IN THE VOID

Holloway was used to big game hunters and their expeditions to other worlds. But this trip was sheer madness—a space ship stalking among—

The examiner looked doubtful and said, "But Mr. Holloway, regulations require that I read your log before I take verbal testimony."

Holloway's face was drawn and ravaged. His bloodshot eyes sat in black pits. They were trained on the Examiner but looked through him rather than at him.

Holloway said, "But, I must talk! I've got to tell you about it. I have to keep talking."

"But—"

Holloway's words tumbled out. "It started in the control cabin there in deep space. When Mrs. Kelvey came in. She was the blonde one. I turned around and she said, 'Captain, there's a great big tiger in the companionway.'"

The desperate Holloway, fearful of being stopped or running out of words, went into minute detail. "She made the statement as a pouting complaint, almost casually. Then, before I could speak, she realized what she'd said and her face changed. A kind of horrified double-take. 'A tiger? In the companionway of a space ship?' This last was an incredulous question she asked herself. Then she fainted. I looked outside. I thought I saw something blurred and indistinct but it vanished quickly if it was really there at all. The companionway was empty. No tiger. No animal of any kind—"

The Examiner, holding up a hand of protest, looked like a man directing traffic. "Please, Mr. Holloway—please. We must remember regulations."

Holloway's eyes closed for a moment but he resolutely forced them open as though afraid of something.

The scene was Holloway's two-room suite in the Space Port Hotel. There were three men present—Holloway, skipper of the Space King, John Mason, Port Resident, and Merle Kennedy, Section Examiner for the Space Authority people. Kennedy regarded Holloway with frank concern. Good heavens—the man was a complete mess. Looked ready to collapse. Kennedy turned to Mason. "This can be postponed, you know."

Mason was regarding Holloway also. Strange, he thought; Holloway had left in a fanfare of publicity. Now it appeared his return would be even more dramatic. Maybe Holloway was that kind of a chap; the kind things just happened to.

He was quite young though he certainly didn't look it now. He'd been known as a playboy ever since his father struck it big in Venusian oil. But good-looking, personable, he had worn the label well. He'd been good copy because the public regarded him with patronizing affection. To them, he'd been a nice kid having fun; not a young wastrel wasting his father's money.

Naturally he would pick a glamour girl to play the romantic feminine role and

Melody Hayden had filled the bill perfectly. Together, they had enchanted the public. Princess and Prince Charming stuff. Then tragedy. Disaster in a rocketing sports car; Melody's coffin sealed before the funeral; young Holloway coming off without a scratch. Melody's death was a bombshell and everyone asked. What will he do now? expecting of course, something sensational.

He didn't let them down. Dramatically, he announced a completely new life. He bought a space ship and foreswore his old ways. He had quite a reputation as a big game hunter. He'd stalked the vicious Plutonian ice bears and lain in Venusian swamps waiting for the ten-ton lizards to rise out of the slime. He had knocked over the wiliest of animals, a telepathic Uranian mountain wolf and had dropped in flight a Martian radar-bat, a feat duplicated by only three other marksmen of record.

So what more natural occupation than guiding hunting parties in deep space? Holloway had been obviously torn by Melody's tragic death. Perhaps out among the stars he could forget.

here had been some trouble, Mason recalled, in clearing Holloway's first cruise. A party of five. Not to any established hunting ground but a D. U. thing. Destination Unknown, and they were always trouble. Clearance had been made, though, and now—here was Holloway back again—dramatically of course—with one of his party dead and the other four in trance-like stupors. Strange.

And stranger still, Holloway's reason for wanting to talk immediately; with no rest—no medical attention:

"It will help keep me awake. I mustn't go to sleep. Can't I make you understand? I've got to stay awake."

Mason pitied the man. He turned to Kennedy. "I have the log here, sir. Perhaps you could go over it now—"

Holloway leaned forward. "I'll tell you what's in the log. Every word of it. If I just sit here waiting—"

Mason laid a hand on his knee. "It's all right, old chap. I won't let you go to sleep. You and I will talk while Mr. Kennedy goes through the log. It won't take long."

Mason handed the book to Kennedy. He was almost apologetic. "It's a strange log, sir, It—"

"Strange?" Kennedy frowned. Logs had no right to be strange. There were regulations—rules stating exactly how a log should be kept.

"Well sir, the lad is young. His first trip. I just meant there's perhaps a little more in the log than should appear there."

"We'll see," Kennedy said. There was a slight frost on his words. If disciplinary measures were in the offing it would pay not to get too cozy with Holloway and the Resident.

Kennedy opened the log. The first entry was dated June 3rd, 4:10 p. m. Earth time. Kennedy frowned. Permissible of course, but sloppy, very sloppy. The better skippers computed from Orion immediately after blast-off. Kennedy set back and began to read:

June 3rd, 4:10 p. m.

We blasted at 2:18 p. m. A good getaway. Course 58.329 by the polar angle. No blast sickness among the passengers. They are old hands. I put the automatic board into control at 3:50 p. m. I checked the tubes. Pressures balanced and equal.

I don't like this cruise. I don't like Murdo. He's a domineering slob. The other four, well—Keebler is an alcoholic, Kelvey an empty-headed opportunist. I don't particularly dislike them. They're just a worth-

less pair who would rather fawn on Murdo and take his insults than work for a living. The two wives are both young. Martha Keebler has a child's mind in a woman's body. Jane Kelvey is an oversexed witch with an indecent exposure complex. I may have trouble with her. Already she's parading around in skimpy shorts and a bra. Evidently Murdo doesn't care for women. He pays no attention to her. Money and power are his dish. And a terrible restlessness.

Melody baby—I wish you were here—

June 4th, 3:00 p. m.

I had a talk with Murdo about this silly cruise. Tried to swing him onto something that makes a little more sense. Pluto, Venus, Ganymede—some hunting ground I'm familiar with. No good. Even a suggestion and he thinks you're crossing him and snorts like a bull. Still demands to go to this place where big game prowls in space. Where elephants and leopards and snakes and anything you can name fly around your ship and look in your ports. Where you do your hunting in space suits right out in the void.

Why in hell did I fall for this idiocy? Guess I just didn't care. Maybe I thought it was a good idea because it sounded like a cruise you could get killed on without much trouble. No—I shouldn't say that. Melody wouldn't like me to say it. She was so wonderful—so level-headed. How wrong they all were about us. About her. Because she was so beautiful, I guess. I tried to tell them I'd married an angel and they took bets among themselves on how long it would last. The answer to that would have been forever. It still is. I've lost so much and learned so much in such a very short time. The hell with Murdo and his four puppets. I'll take them out and bring them back. Then I'll go somewhere alone and I won't come back at all.

Melody.

Course 28.493 by the polar angle. Went through small asteroid field....

Kennedy looked up sharply. He frowned. "This log is unacceptable."

Holloway was pacing the floor, his eyes blank and terrible "Unacceptable?"

"Course and position should be noted within each twenty-four hour period. You missed June 5th entirely. You—" Kennedy leafed through the pages. "Why at times you missed three and four days in sequence!"

"Sometimes I didn't have time to write."

Mason tried to hide his disgust. How did men like Kennedy get into positions they weren't fitted for? The ass! Couldn't he see this man was suffering? Mason said, "Why not reserve comment until you've finished, Mr. Kennedy?"

Kennedy's eyes widened at the sharp tone of Mason's voice. Really. When residents start dictating to Examiners—Kennedy saw the stiffness in Mason's face. And something more. He went quickly back to his reading:

June 6, 1:00 p. m.

I talked some more with Murdo about this fool cruise. He got wind of our destination—wherever it is—from some rich idiot in Paris. And I don't use idiot figuratively. His informant was in some kind of a private nut house—an exclusive insane asylum of idiots with lots of money—and he had lucid intervals. At one of these times he told Murdo where he'd been and what had happened. I don't think Murdo believes all of it but he wants to see for himself. Well, if he wants to spend his money chasing meteorites it's his business.

Keebler got drunk as a goat. Strapped him in his bunk and left him there. Murdo spent a few hours explaining guns to Mrs.

Keebler. I think he enjoys the look of wonder on her face. Makes him feel very superior knowledgewise. Her face is just built that way and so far as she's concerned he could be talking Greek. He thinks she's very beautiful. I wonder if he ever saw Melody's picture?

Course 36.829 by the Orion angle. All clear.

June 9th, 1:00 a. m.

Course 36.841 by the Orion angle. Small asteroids.

Jane Kelvey is bored and has started taking it out on me. When I passed her door it was open. She was taking a sponge bath, stark naked in the middle of the cabin. She turned around to face me and did a very bad job of acting flustered, trying to cover herself up with a small sponge! How crude can a female get? She was hoping I'd come in. If I had it would have been to slap her face. I got away as fast as I could.

June 10th, 7 p. m.

Course 41.864 by the Orion angle. Brushed a small asteroid.

I've been noting the time wrong. It should be figured on a twenty-four-hour cycle. Midnight to midnight, the hell with it.

Had a fight with Murdo. He wanted to take over the ship. His words were, "Let's get some speed out of this slop bucket." I reminded him I was Captain. He reminded me he was footing the bills. I asked him how he would like to be locked in his cabin for the remainder of the cruise? He didn't say, but I guess he wouldn't have liked it because he quieted down. Keebler has been quietly drunk for the last two days. Lucky Keebler.

June 13th, 18 hours.

Course 26.932 by the Virgo angle. Went four degrees off course to avoid small planetoid.

Jane Kelvey came to my cabin an hour ago. The rest were asleep. She wore a blue dressing gown with nothing under it. I want to set down what happened in case there's ever a kickback although I don't think there ever will be.

I was sitting in a chair and she came up behind me and it was very unfortunate because I saw the blue dressing gown first. By sheer chance it was almost exactly like the one Melody wore that first night. I was thinking of Melody. Melody was all around me and inside me. In my mind, in my heart, in all my aching regrets.

So when that dressing gown brushed me, something electric happened inside and I got up and took Jane Kelvey in my arms. It wasn't more than three or four seconds but in that time the gown had been brushed aside. Then I came to my senses and pushed her away.

The dressing gown stayed parted. She stepped back, confused. She said, "What's the matter? Are you scared?"

"I'm disgusted. Button your gown. Get out of here!"

"What are you? Not one of those noble creatures I hope—who wouldn't touch a man's wife."

"I said get out! I wouldn't touch you regardless."

"But you just did."

"It was a mistake. I—"

"Look—I'm a woman. You're a man—I think. We're alone in space and life is short. Let's have fun and then forget about it."

I slapped her across the mouth. A skipper can be jailed for life for striking a passenger. Even with cause. But I slapped her and I'm setting it down in the log....

Kennedy looked up from his reading. "Jane Kelvey—she is the dead one?"

Mason nodded.

Kennedy looked at Holloway with marked severity. "Are you sure you only slapped her?"

Mason exploded. "Good God, man. Did you see the body? You're not implying he did that to her, are you?"

"I'm not implying anything," Kennedy said within a restrained grimness that infuriated Mason.

"Why don't you finish the log before you start passing judgment?"

Kennedy leafed through the pages. "I—wait a minute! This log doesn't cover the whole cruise! It breaks off in the middle of a sentence!"

"Read what's there, man! Read what's there."

"Very serious—very serious," Kennedy muttered. "Not completing a log. No license should have been issued this man. Lax! Very lax." He sat back to make himself more comfortable and prepared to go on with his reading.

June 30th—3 hours

Course 29.341 by the Virgo angle. I think that's the course. The instruments are acting funny. In fact a lot of things seem to be wrong. Some of the constellations aren't in the right places anymore.

I began noticing these things a couple of days ago and spoke to Murdo. I suggested we turn back. I told him it was my duty as a skipper to look out for the welfare of my passengers. And that included not continuing if vital instruments showed signs of failure.

He sneered at me and said, "I thought you were a big game hunter, Holloway?"

I told him I'd hunted big game—yes.

"It doesn't sound like it. You sound like a timid old woman. So you've made some miscalculations. The course is still right. It's on the flight pattern in the automatic control board and I know it's correct because I gave it to you."

"But if instruments fail nothing stays right."

"Okay—you're the skipper. If you've turned yellow and want to show your tail I guess there's nothing I can do about it."

He almost got his jaw broken, but I was able to hold myself. Then, suddenly, I didn't care. I didn't care whether Murdo stayed alive or got killed. As to the others—they'd come on the cruise with their eyes open. They deserved whatever they got. And I certainly didn't give a damn about myself. Guess I wasn't cut out to skipper a ship. A skipper should care. That's all he should do. Just care. I'd rather dream about Melody.

I don't know what the date is. The chronometer stopped so I don't even know what time it is. But what does it matter about the time if you don't even know what day it is? We just go on and on.

Murdo—I can't figure out. Windbag or not—braggart or no—he has an iron will. I think he's scared but he won't admit it. And some stubborn streak inside him won't let him turn tail and run. He hides his fear behind long accounts of his hunting trips. He describes the vicious animals he's killed. He bores us with accounts of his skill as a great hunter.

The rest listen because they have to. I go to my cabin and remember Melody.

The rest are scared too, but they're too scared of Murdo to let him know it. That's an odd one. Scared for your life but afraid to tell the big man because he might kill you. Would Murdo kill in a fit of rage? I don't know.

Keebler stays drunk so none of it bothers him. Keebler's wife, I think, is in love with Murdo but it's a kind of little-girl love.

She never quite grew up. Kelvey glues himself to Murdo and sticks like a plaster. He seems to consider Murdo a haven, as though Murdo's bulk will make everything all right.

Jane Kelvey hasn't quit making passes at me but they're half-hearted. She bothers me. I'm uneasy when she's around. I get the feeling that any minute she might drop to her knees and beg. What do you do with a woman on her knees before you, begging? Maybe before long her husband will look good to her. Maybe she'll be able to get him away from Murdo's side for a while.

I look at both these women and realize what I lost. Melody.

Jane Kelvey came to my cabin. It's hit her that things aren't right. She's scared. She asked, "Why did you tell Murdo you wanted to turn back?"

"Because I thought we'd come too far."

"Do you still think so?"

"Everything will be all right."

"The instruments—are they working again?"

I lied to her. "They're working."

"Do you think it's really as Murdo says—that there are animals out in space?"

"I don't know."

She looked wan and forlorn and I was sorry for her. She said, "I've only been on one hunting trip in my life."

"Is that so?"

"In India. A boy carried my gun for me. When the tiger came the boy handed me the gun and told me where to point. I fired but I didn't hit the tiger. Somebody else shot it."

"That was too bad."

"No, it was all right. He was such a big beautiful animal. So sleek and powerful."

I saw her body tremble as she closed her eyes. I said, "You better get some rest."

She passed a hand over her eyes and then gave me an odd wistful smile. "Animals are smarter, I think. We do make awful messes out of our lives, don't we?"

"I'm afraid we do."

"But is it our fault? God makes us this way. We can't help that."

"No, I guess we can't."

"Why did God make us like we are?"

"I don't know, Jane. Let's hope He does."

"Isn't that sacrilege or something? Doubting Him?"

"I guess it is."

She reached out suddenly and touched my face. "You're a nice guy. I don't blame you for slapping me."

"I'm sorry. You're pretty nice yourself."

The smile faded. "I'm not," she said miserably, and left the cabin.

Poor kid. I forgot her and thought of Melody.

Something's gone wrong with everything. Not a very scientific statement for a skipper to make but that's how it is. The stars have disappeared. The instruments jumped around as though they had minds of their own. The dial needles spin around like crazy.

And something else—something even worse. Space has changed. I mean there's something out there in space. First I just felt it. A raw uneasiness. Then I trained a light through the port and I could see it. Stuff that looks like dust but isn't. It's hazy and yet it sparkles and you have a sense of being on a ship that's pushing its way through a fog so thick the friction holds you back. And there's something more about this sparkling fog. You look out at it and it seems to be looking back at you. Or maybe I'm los-

ing my mind. Anyhow, that's the way it seems. As though it's waiting for you to speak to it—say hello or something.

I guess I'm going crazy.

The sparkling fog is affecting the others, too. They've all quieted down and they slip along the bulkheads as though they were being followed. Only Murdo blusters back. He says, what the hell? We expected something different, didn't we? Well, this is sure different enough, isn't it?

I'd turn back but I don't know how. I have nothing to go by. The instruments make no sense.

I am going crazy. I looked out the port just now and saw a water buffalo. It was standing right out there in space with its head down looking at the ship! I had a light turned on it and suddenly it charged and hit the port headon. It bounced off and went staggering away and disappeared.

But it left a big white scratch on the quartz outside. At least I think it did. Wait. I'll look again. Yes. A big white scratch. It's still there. So how can I be mad? Maybe it's a new kind of madness....

Some of the sparkling fog has penetrated the ship. Turn out the light and you can see it in the cabin. Not as thick as out in the void but thick enough to see; thick enough to stand there and ask you to talk to it.

Murdo is ready to turn back. He came to the control room and said, "I saw it out there."

"You saw what?"

His face was pale and his hands twitched. "A boa-constrictor. Exactly like the one I killed four years ago on the Amazon. It came to the port and looked in at me."

"It must be your imagination."

"No. It was there. Let's turn back. Get out of this."

"I wish we could."

"You mean—?"

"I don't know where back is. We might just as well go as we are. Changing course doesn't help if you don't know your directions. Our only hope is to drive on out of this cloud. If I turned I might go right back into it."

"Then one direction is as good as another?"

"That's right."

His mind wandered as he turned away. "I didn't know it would be like this," he muttered. "I thought it would be fun—sport. I thought we'd put on space suits and go out and make a kill. I thought—"

"The space suits are ready. Do you want to try it?"

He shuddered, his hanging jowls almost flapping. "You couldn't drag me out there."

The stuff is getting thicker in the ship.

Jane came into my cabin. She had an odd look on her face. She said, "There's a big tiger in the companionway."

I got up from my bunk and suddenly she seemed to realize what she'd said. She repeated it. Then she fell down in a faint. I put her in my bunk and looked out into the companionway. The sparkling fog glittered but there was no tiger.

When she came to, she didn't seem to know where she was. Then she smiled. "I must have been drinking too much," she said. Then she realized where she was. "But look where it got me? Into your bunk."

"Do you feel all right now?"

"I guess so. I can get up now. I do have to get up, don't I?"

"I think you'd better."

After she left I did some thinking. The

sparkling haze had been outside the ship and I'd seen a water buffalo through the port. Murdo had seen a boa-constrictor. Then the haze penetrated the hull and got inside the ship. And Jane had seen a tiger in the companionway.

Were they phantoms? Was Jane's tiger a tiger of the mind? Murdo swore his snake had been real and my buffalo left a mark on the port. I sat there trying to think. With the sparkling fog drifting around me. It seemed to be trying to tell me something.

Things grow worse. Today, at mess, Murdo was holding forth about a Plutonian ice bear he'd killed. I think he was trying to cover the gloom that has settled over us. Anyhow, he'd just got to the point where the bear was charging down on him when we heard the roar of thunder from outside. Maybe I'd better repeat that for the record. We heard a roaring through the walls of the space ship. In the void. Nothing goes through the walls of a space ship in the void but we all heard it and jumped to the port. And we all saw it.

An ice bear as big as ten of the largest that ever lived in the Plutonian ice flows. A huge ravening beast that rushed through the void at the ship and tried to tear the port out of its metal seat with teeth as big as the height of a man.

The women fell back, screaming. Keebler, in his usual stupor stared blankly as though not realizing what was going on. Kelvey looked to Murdo for guidance. When none came he crouched behind a chair.

Murdo fell back slowly, step by step as though his eyes were fastened to the quartz and it was hard to pull away. I don't remember what I did. Murdo was saying "My God—my God—my God," as though chanting a ritual. He tore his eyes from the sight and looked at me.

"You wanted big game, buster," I croaked. "There it is."

"But it can't be real. It can't!"

"Maybe not, but if that port gives I'll bet it won't be from vacuum pressure."

"Vacuum draws. It doesn't press," Kelvey babbled inanely, but nobody paid any attention to him.

The beast made two more charges on the ship, then drew back screaming in rage from a snapped tooth. And all around us, there in the ship, the sparkling fog glittered and tried to talk.

Two hours. The beast still rages in the void outside our ship.

Jane is dead. She was horribly mangled. I put her in her bunk and laid a blanket over her and now the blanket is soaked in her blood.

No one could have helped her. It happened in the lounge. She was in there alone. I was in the control room. I don't know where the rest were.

I was working uselessly with the controls when I heard a terrible scream mixed with a hideous snarling. I ran into the companionway and stared toward the lounge. Murdo appeared from somewhere and we were shouldering each other on the companion ladder. Murdo fell heavily. Then we were both looking into the lounge.

It was too late to help Jane. We saw her there, still and bloody. A shiny black leopard was crouching gory-mouthed over her body with its paws on her breast. It's eyes were black magnets, holding mine.

I said, "Get a gun," trying to speak without moving my lips.

"But—"

"Damn you—get a gun!"

Murdo staggered away. It seemed a year before he came back with a Hinzie Special .442. The leopard was tight, ready

to spring. I didn't dare move a muscle. I said, "Over my shoulder. Get him. Don't miss."

That last was a little silly. How could a man miss with a Hinzie at ten feet? Murdo fired and tore the leopard's head off. It was down already so it didn't move. It sat there headless, its tail twitching slightly. Then it was still.

I didn't hesitate this time. I said, "Come on. We've got to get this out of here before the others show."

We put the dead leopard into the forward storage bunker. Then I picked up poor Jane and carried her to her room. Murdo helped me up the ladder. The others were in the companionway and they pressed back in horror to let me pass. For the first time since we'd started, Keebler was sober. Ashen, shaking, stone sober. He broke; screamed and ran for his bottle, the world of reality too terrible for him to bear.

There was no huddle, no conference, no meeting of the minds. Everyone else went to the galley and sat staring into space; stared at the dancing little sparkles in the air.

I went to my cabin.

When confronted by a reality no matter how crazy and improbable, a man must not turn from it. He can not carry the mangled body of a woman in his arms and then say to himself: This isn't real because it doesn't make sense. It does make sense—some kind of sense or it would not exist. A man must say rather: I don't understand this and maybe I never will but God gave me a brain and I must try. I can't sit back and deny reality. I must try to understand it. I cleared my mind and tried to rationalize the things around us.

Out in the darkness there was a terrible roaring and yammering. The thuds and bellows of violence. I went to the port.

There, in the light from the ship, the ice bear and the water buffalo were fighting. It was a terrible and magnificent thing but to me it was anticlimax; a sideshow of almost casual interest.

The ice bear outsized the water buff by too much to be in any danger, but the buff fought savagely and the ice bear had no easy time. The buff opened a long deep gash in the bear's throat when the bear missed a lunge and the Plutonian mammal fell back with a roar of pain and fury. They came together again and this time the bear got the buff in a hug and it was all over. The buff's spine broke and the bear bent the body double, then tore it to pieces. I wondered if the others were watching.

I went back to pacing; back to my thinking.

I have been thinking, thinking, thinking; wracking my brain. And of one thing I am sure. Some invisible intelligence is trying to help me; trying to give me knowledge. The sparkling fog?

A great and wonderful thing has happened.

And I know. Do you realize what that means? To know in a situation like this? And to be wonderfully and wildly happy? The knowledge was not all given me. There was a thought process of my own developing. The thing given me was the basic knowledge upon which to build. And proof of this knowledge. Absolute and indisputable proof.

The sparkling fog is mind stuff.

I will not defend that statement. I will not rationalize it. But I will seek explanations; consider possibilities.

Known: This sparkling fog through which we drift is intelligent matter; the stuff of thoughts; the basic material from which

consciousness springs. It is consciousness itself.

Supposed: It is probably electronuclear in composition, and appears to be completely innocent. By that I mean it has no intention to harm, perhaps because it does not understand the difference between good and evil, harm and help, pain and pleasure.

It has only one urge; the basic urge of all creation. To evolve, to develop. As the tree has but one basic urge—to grow and greaten; the flower but one desire—to bloom, to improve; to assert itself through evolution and become better.

Perhaps—and who can successfully deny it?—this great space cloud could be a storage place of the Creator Himself; a storage place for mind stuff. When an infant or an animal or a plant is touched with the magic thing called life—where does that magic come from? Is it created at the very moment or does it come somehow from a source-pile? Is this cloud a source-pile of life itself? No one can say. But I think I've hit on a limitation of this mind stuff. I'm going to try an experiment and pray to God it works.

I'm going to find Murdo and knock him unconscious.

I have solved the mind-stuff. What just happened is the last bit of proof I need. I went to the galley. Murdo had wandered away. I found him in the lounge. I stepped casually in front of him, set myself, and drove a straight right to his jaw. He went down like a log.

I closed my eyes and counted to twenty praying to God to make me right in my belief—in the crazy theory I evolved. I opened my eyes and turned to the storage locker. I looked inside.

The dead leopard was gone.

I went to the port and looked out. The huge ice bear had been ravening insanely among the shreds of the water buffalo's body. As I watched both bear and buff began fading.

Before my eyes, they disappeared, evolved back into the stuff of the sparkling fog. I had proved my theory.

Now all the parts dropped into place. The mind stuff has only the ability and the urge to evolve—nothing else—no imagination. It can evolve only if given something to reproduce.

This it can get only from a human mind. It is able to see an image pictured in the human memory and reproduce it in a state of absolute reality.

Witness: Jane saw a tiger in the companionway. Clear in her memory was the image of the tiger she had shot at in India. The mind-stuff saw it and reproduced it in reality. The water buffalo came from my own mind. I killed one exactly like it a year ago. The ice bear was out of Murdo's memory as was the black leopard and the snake.

Witness: The three animals created inside the ship did not appear until the mind stuff from outside penetrated the hull and entered the ship. They were of normal size. But the animals created outside the ship were far out of proportion, the ice bear especially. Why? Because, I believe, the mind stuff is denser in the void. There it has more strength.

My defense against the mind stuff was formulated almost accidentally. I remembered the sequence of Jane's tiger. She saw it, entered my cabin, realized its significance, and fainted. I looked into the companionway and saw the tiger fading.

So I knocked out Murdo for final proof and got it. As soon as he lapsed into uncon-

sciousness the recreations from his mind turned back into sparkling fog. Obviously, and a heaven-sent phenomenon it is—the mind stuff immediately loses its subject-image when the mind from which it came goes unconscious. The mind-stuff has no memory of its own and cannot hold its recreated image in the evolved form under conditions of unconsciousness. The answer now becomes simple.

I drugged Murdo before he regained consciousness. I drugged the other three by means of whisky and food. They have been unconscious for twelve hours. Nothing has happened. I shall keep them that way.

The mind-stuff is trying to complain to me. Almost petulantly; as a child. I sense it sharply. It does not understand the wrong it has done and feels it has been deprived of its right.

I have no time for the mind-stuff. I guard myself against it and ignore it. There are other things on my mind. Shall I go back if we ever escape from the sparkling fog? I don't know. I don't want to go back. I want to go on and on forever just like this. But the others cannot go on like this. It would be murder. I don't know.—I don't know.

I must keep awake. I use drugs. I must not sleep—not sleep.

We have cleared the fog. The instruments are working again. Again the stars glow. What shall I do. Melody....

Kennedy looked up from his reading. "As I said,"—and he spoke severely—"you break off at an abrupt point. You did not complete the log."

Holloway's red eyes were glazed. "I had other things to do. I was tired of keeping a log."

Mason sought to draw Kennedy off his quarry. "There's an odd point," he said, looking at Holloway. "Only animals were recreated. Do you think the mind stuff was capable only of recreating animals?"

Holloway spoke in an exhausted monotone. "It took the clearest image from the strongest minds. Murdo thought mainly of hunting. He pondered on his more spectacular kills. Thus the mind-stuff used his images."

"I see."

Holloway seemed to sag—to shrink. He said, "The mind-stuff could recreate anything. It brought Melody back to me."

Kennedy sprang to his feet. "There is no reference in this log to—"

Mason turned on him. "Shut up, you fool!" He laid a gentle hand on Holloway's shoulder. "Tell us about it, old chap."

Holloway turned his burning eyes on the closed door to the next room. "She's in there. I wanted to get rid of you. I was afraid you would take her away from me. But it's no use. I can't hold my consciousness much longer. Then she will vanish."

Holloway tried weakly to rise from his chair. He called, "Melody—Melody baby!"

The door opened. A beautiful girl in a blue dressing gown came gracefully into the room. She walked straight to Holloway and took his tortured head into her soft hands. Her eyes pleaded with the men. "He suffers so. He will not sleep. I can't make him sleep. I—I don't understand."

Holloway's head dropped suddenly onto his chest. He slumped down in his chair. And as he did so, a change took place. The two men stood rooted, staring.

As Melody began to fade. Slowly, slowly, into a transparent image, into a mist, into a handful of sparkling fog.

Then she was gone.

Mason knelt by the bone-thin body in the chair. He made a quick examination and

got wearily to his feet.

"Holloway is dead," he murmured. "Drugs of that nature would kill an elephant. I can't understand how he lived so long."

Kennedy blinked and seemed to come out of a trance. He frowned. "And the investigation hardly started."

Mason shook his head and looked pityingly at Kennedy. It was just no use with a man like him. Mason said. "There's one point entirely apparent without an investigation."

"What's that?"

Mason's voice was sharp and cold. "That our little playboy, for all his reputation of frivolity, was a better man than you and I put together. Does that register, Mr. Kennedy?"

Kennedy flared. "Now see here. I'm only doing my job!"

"Oh shut up," Mason said.

And strode out of the room.